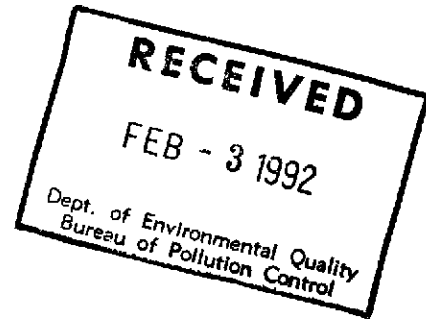


# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

Mr. John Taylor  
Environmental Engineer  
MS Department of Env. Quality  
2380 Highway 80 West  
Jackson, MS 39204



January 31, 1992

Re: Cedar Chemical Corporation  
Consent Decree and RFI

Dear Mr. Taylor:

Please find enclosed copies of the Complaint by the United States of America on behalf of the USEPA and the Consent Decree as signed by Cedar. Both items were lodged with the Court on January 23, 1992. When or whether the comment period begins or has begun, I do not know at this time.

Please contact me with questions.

Sincerely,

Steven T. Boswell  
Dir. of Env. Affairs

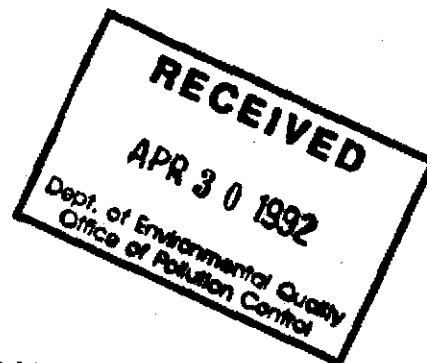
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365



4WD-RCRA/FF

Wm. Stephen Spengler, P.E.  
Chief, RCRA Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39289-0385

Re: Cedar Chemical Corporation Consent Decree  
MSD 990 714 081

Dear Mr. Spengler:

Enclosed please find a copy of the Cedar Chemical Corporation consent decree, which was formally filed on April 17, 1992. John Taylor of your staff has been requesting a copy.

If you have any questions concerning related compliance matters, please contact me at (404) 347-7603, for questions involving legal matters, please contact Zylpha Pryor at (404) 347-2641 ext. 2283.

Sincerely yours,

*Dann J. Spariosu*  
Dann J. Spariosu  
Environmental Scientist  
RCRA Compliance Section

Enclosure

cc: Beverly Williams, RPS

THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI

FILED

APR 17 1992

J. T. NOBLE, CLERK

BY

DEPUTY

UNITED STATES OF AMERICA,

Plaintiff,

v.

CEDAR CHEMICAL CORPORATION,

Defendant

Civil No.: 79-2-0002E

CONSENT DECREE

WHEREAS, plaintiff, the United States of America, at the request of and on behalf of the Administrator of the United States Environmental Protection Agency (hereafter "EPA"), filed its Complaint in this action on January 23 1992, seeking injunctive relief under Section 3008(a), (g) and (h) of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. § 6928(a), (g) and (h), and the federal regulations and state hazardous waste management laws and regulations promulgated thereunder.

WHEREAS, plaintiff's claims arose from the operation, by past and present owners and operators, of a chemical manufacturing facility located in Vicksburg, Mississippi;

WHEREAS, plaintiff and defendant have agreed to the entry of this Consent Decree, in order to settle plaintiff's claims against defendant without further litigation;

WHEREAS, the entry of this Decree does not constitute an admission of fact or law by any party as to any issue raised in this action;

DEPARTMENT OF JUSTICE

90-7-463

LANDS DIVISION

WHEREAS, the entry of this Decree does not constitute a release of any claims not expressly resolved herein nor a release of any claims whatsoever against others not party to this Decree;

WHEREAS plaintiff and defendant agree, and this Court finds, that the settlement of the claims resolved herein without further litigation is in the public interest and that the entry of this Decree is the most appropriate means of resolving these matters.

NOW THEREFORE, it is hereby ORDERED, ADJUDGED and DECREED as follows:

#### I. JURISDICTION

This Court has jurisdiction over the subject matter of this action and over the parties to this Decree under Section 3008(a) and (h) of RCRA, 42 U.S.C. § 6928(a) and (h), and 28 U.S.C. §§ 1331, 1345 and 1355. For purposes of entering and enforcing this Consent Decree, plaintiff's Complaint states a cause of action upon which relief can be granted.

Venue is appropriate in this judicial district pursuant to Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h)(1) and 28 U.S.C. Section 1391(b).

#### II. DEFINITIONS

Whenever the following terms are used in this Decree and the attachments hereto, the definitions specified hereinafter shall apply. All terms not defined herein shall have the meaning used in RCRA and the applicable regulations.

A. "C.F.R." means the Code of Federal Regulations.



- B. "CMI" means Corrective Measures Implementation
- C. "CMS" means Corrective Measures Studies.
- D. "Days" means calendar days.
- E. "Defendant" means Cedar Chemical Corporation.
- F. "EPA" or "Agency" means the United States Environmental Protection Agency.

G. "Facility" means all contiguous property owned by Cedar Chemical Corporation located on Rifle Range Road in Vicksburg, Mississippi, including but not limited to the North and South plants.

H. "HSWA" means the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98-616.

I. "MSDEQ" means the Mississippi Department of Environmental Quality.

J. "Plaintiff" means the United States of America, on behalf of EPA.

K. "RCRA" means the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., as amended.

L. "RFI" means RCRA Facility Investigation.

M. "Settling parties" means the parties to this Decree, that is, the United States of America and Cedar Chemical Corporation.

### III. PARTIES BOUND

A. The provisions of this Decree shall apply to and be binding upon the United States and the defendant, its officers, directors, employees, agents, successors and assigns, and upon

all persons, firms, corporations, contractors and consultants acting under or for the defendant.

B. The defendant shall provide a copy of this Decree to all contractors, subcontractors, laboratories and consultants retained to conduct or monitor any portion of the work performed pursuant to this Decree within ten (10) calendar days after entry of the Decree by the Court or within ten (10) calendar days after the defendant enters into a contract with any such third party, whichever occurs later. The defendant shall include an express requirement in each such contract that the contractor comply with all of the terms of this Decree. For purposes of determining compliance with the terms of this Decree, any action of defendant, defendant's contractor's, subcontractor's, laboratories and consultants in carrying out any provisions of this Decree, shall be deemed an action of defendant.

C. The undersigned representative(s) of each party to this Decree certifies that he or she is fully authorized by the party whom he or she represents to enter into the terms and conditions of this Decree and to legally bind that party to all such terms and conditions, provided however, that each undersigned representative executes this Decree solely in his or her representative capacity and does not thereby assume or incur personal liability for the obligations of the party whom he or she represents.

D. The defendant shall give notice in writing of the existence and terms of this Decree to any successors in interest prior to any transfer of ownership or control of all or part of the subject Facility or of any shares of stock of defendant. The defendant shall simultaneously provide a copy of such written notice to plaintiff.

E. No change in ownership of all or part of the subject Facility or in the corporate status of defendant will in any way alter the defendant's responsibilities and obligations under this Decree.

#### IV. CLOSURE AND POST-CLOSURE CARE

A. Within sixty (60) calendar days following entry of this Decree by the Court, the defendant shall submit to plaintiff and to MSDEQ, a plan for clean closure of the container management area. The container management area encompasses all areas within and immediately adjacent to the returned product storage area designated in Figure A-1 in the Scope of Work for Interim Measures attached to and incorporated in this Consent Decree, in which hazardous wastes were previously managed.

B. No later than forty-five (45) days following notice of a determination by plaintiff that defendant cannot clean close the container management area, defendant shall submit a post-closure care plan.

C. Plaintiff may hereafter designate in writing additional hazardous waste management units requiring closure and post-closure care pursuant to this Paragraph. Subject to the dispute resolution provisions of Paragraph XVI below, the

defendant shall submit and implement plans or permit applications for closure and post-closure care with respect to those additional hazardous waste management units designated by plaintiff, in accordance with the requirements of this Paragraph, as if those additional hazardous waste management units were listed in Subparagraph A above.

D. The hazardous waste management unit listed in Subparagraph A above, together with those units designated by plaintiff pursuant to Subparagraph C above, shall hereafter be collectively referred to as the "Closing Units."

E. Each plan for closure or post-closure care shall meet the applicable requirements of MHW R Part 265, Subparts G, K, L, M and N and any other applicable state or federal regulations and requirements, including, with respect to any units to be closed by removal, the applicable requirements of MHW R §§ 264.228, 264.258 and 264.280(e). Each plan shall be submitted in the form required under the applicable regulations.

F. Each closure plan shall contain a detailed estimate of the cost of closing the facility, which meets the requirements of MHW R § 265.142, and each post-closure plan shall contain a detailed estimate of the cost of post-closure monitoring and maintenance of the facility, which meets the requirements of MHW R § 265.144.

G. Plaintiff shall review each of the closure and post-closure plans submitted by the defendant and may confer with each other on the adequacy of the plan. Each proposed closure and post-closure plan or permit application will be

subject to review, modification and approval under the procedures established in Paragraph XI below.

H. The defendant shall commence closure within fifteen (15) days of notification by EPA of approval of its closure plan, unless the plan, as approved, provides for a different date to commence closure; and the closure activities shall be completed and the appropriate certifications submitted within the time limits specified in each approved closure plan.

I. Following completion of closure of each Closing Unit a determination will be made by EPA of the need for post-closure care. If the Agency concludes that such care is necessary, the defendant shall undertake and continue the post-closure care required under the approved post-closure care plan, submitted pursuant to B above, until such time as a post-closure permit is issued.

J. Upon written request by plaintiff pursuant to MHWR § 270.1, the defendant shall submit to plaintiff and to MSDEQ a post-closure permit application for each subject Closing Unit. Each such application shall be submitted within the time period specified in plaintiff's request.

K. Each post-closure permit application will be subject to review, modification and approval under the procedures established in Paragraph X below.

L. Following issuance of the post-closure permit for each Closing Unit, the defendant shall undertake and continue the post-closure care required under the terms of the permit.

V. FINANCIAL ASSURANCE FOR CLOSURE

A. For the subject Facility, the defendant is required to establish financial assurance for the closure of the Closing Units.

B. The wording of the financial assurance vehicle for any closure trust fund shall be identical to the wording specified in the state regulation equivalent to 40 C.F.R. § 264.151(a)(1), and any closure financial assurance vehicle must be accompanied by a formal certification of acknowledgement, such as that set out in the state regulation equivalent to 40 C.F.R.

§ 264.151(a)(2). Any proposed closure financial assurance vehicle shall be subject to review, modification and approval under the procedures established in Paragraph X below.

C. Each such financial assurance vehicle shall be fully funded either by cash, by bank letter of credit, by corporate guaranty, or by some other vehicle specifically recognized under the applicable regulations for providing financial assurance for such closure, within 30 days after final approval of the financial assurance vehicle. The release of funds from each such closure financial assurance vehicle shall be governed by the provisions of the state regulation equivalent to 40 C.F.R. § 265.143.

D. The financial assurance vehicle shall be held until such time as the defendant makes a request for the release of the funds meeting the requirements of the state regulation equivalent to 40 C.F.R. § 265.143(a) and (h) or the defendant makes a request for the reimbursement of expenditures meeting the requirements of the state regulation equivalent to 40

C.F.R. § 265.143 (a)(10). The financial assurance vehicle shall continue to be held for any Closing Unit with respect to which such a request has not been made and accepted pursuant to Subparagraph E below.

E. If plaintiff accepts the defendant's request for the release of funds or for the reimbursement of expenditures under Subparagraph D above, the Agency shall authorize the release of the funds for that Closing Unit or the reimbursement of the expenditures, as the case may be, within sixty (60) calendar days after receipt of the request.

F. If plaintiff rejects the defendant's request under Subparagraph D above, plaintiff shall so notify the defendant in writing within sixty (60) calendar days after receipt of the request. The defendant may then further pursue the release of the funds in question pursuant to the dispute resolution provisions of Paragraph XVII below, or may subsequently file an amended request.

#### VI. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

A. For the subject Facility, the defendant shall establish a financial assurance vehicle to provide financial assurance for post-closure care of any Closing Units for which clean closure cannot be accomplished pursuant to this Consent Decree.

B. The wording of the financial assurance vehicle for such post-closure care shall be identical to the wording specified in the state regulation equivalent to 40 C.F.R. § 264.151(a)(1), and the financial assurance vehicle must be accompanied by a formal certification of acknowledgement, such as that set out in the state regulation equivalent to 40 C.F.R. § 264.151(a)(2).

C. A proposed post-closure financial assurance vehicle for any applicable Closing Unit shall be submitted to plaintiff within forty-five (45) days following notice of a determination by plaintiff that defendant cannot clean close the Closing Unit. The post-closure financial assurance vehicle shall be subject to review, modification and approval under the procedures established in Paragraph X below.

D. The amount of financial assurance required for post-closure care with respect to the Closing Unit shall be the amount of the post-closure cost estimate specified in the closure and post-closure plans approved for the Facility under Paragraph IV above.

E. Subsequent adjustments to the fund shall be made annually in accordance with the applicable regulations.

F. Should the Agency determine that clean-closure has been accomplished prior to the entry of this Consent Decree, then defendant shall not be required to establish a financial assurance vehicle to provide financial assurance for post-closure care of the Closing Units referred to in Paragraph IV.A. of this Consent Decree. Such determination shall only pertain to this Section and shall not alter defendant's obligations under the remainder of this Decree.

#### VII. CORRECTIVE ACTION

A. All work undertaken pursuant to this Consent Decree shall be performed in a manner consistent with, at a minimum, all applicable, relevant and appropriate EPA Guidance Documents



and the Scopes of Work (attached hereto) and adopted and incorporated herein by reference, including the following:

The Interim Measures (IM) Scope of Work for the subject facility (Attachment A hereto) ; the RCRA Facility Investigation (RFI) Scope of Work for the subject facility (Attachment B hereto); the Corrective Measures Study (CMS) Scope of Work for the subject facility (Attachment C hereto); the Corrective Measures Implementation (CMI) Scope of Work for the subject facility (Attachment D hereto); RCRA and its federal and state implementing regulations; all applicable, relevant and appropriate EPA guidance documents such as the "RCRA Groundwater Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, Sept. 1986); "RCRA Facility Investigation (RFI) Guidance" (EPA 530/SW-87-001), "Test Methods for Evaluating Solid Waste" (SW-846, Third Edition); "Guidance for Preparation of QA Project Plans" (OWR5-QA-1, May 1984); and EPA Region IV Engineering Support Branch's Standard Operating Procedure and Quality Assurance Manual (SOP); and, where so notified by Plaintiff, any additional, applicable, relevant and appropriate state guidance documents.

B. The defendant shall submit to plaintiff and to MSDEQ an RFI Workplan for the subject facility, pursuant to the schedules established in the attached RFI Scope of Work.

C. The RFI Workplan is subject to review, modification and approval under the procedures established in Paragraph X below. The RFI Workplan shall be developed in accordance with, at a minimum, RCRA, its implementing regulations and applicable,

relevant and appropriate EPA and state guidance documents including those described in Subparagraph A of this Paragraph. The RFI Workplan shall be developed and implemented in a manner consistent with the RFI Scope of Work.

D. In accordance with the provisions of the attached RFI Scope of Work, the RFI Workplan shall be designed to determine the presence, magnitude, extent, direction and rate of movement of any hazardous wastes or hazardous constituents within and beyond the subject Facility boundaries. The RFI Workplan shall document the procedures the defendant shall use to conduct those investigations necessary (1) to characterize the potential pathways of contaminant migration, (2) to characterize the source(s) of contamination, (3) to define the degree and extent of contamination, (4) to identify actual or potential receptors, and (5) to support the development of alternatives from which corrective measures will be selected by plaintiff. A specific schedule for implementation of all activities at the subject facility shall be included in the RFI Workplan.

E. The defendant shall submit an RFI Report to plaintiff and to MSDEQ for the subject Facility in accordance with the schedules contained in this Decree and the appropriate Scope of Work and Workplan. The RFI Report shall be subject to review, modification and approval under the procedures established in Paragraph X below.

F. Upon completion of the RFI at the subject facility and approval of the RFI report, the defendant shall conduct a Corrective Measures Study (CMS) in accordance with the CMS Scope of Work.

G. The defendant shall submit a CMS Report to plaintiff and to MSDEQ for the subject facility in accordance with the schedules contained in this Decree and the Scope of Work and Workplan. The CMS Report shall be subject to review, modification and approval under the procedures established in Paragraph X below.

H. Upon approval by plaintiff of a CMS Report for the facility, EPA shall make available to the public for review and comment for at least forty-five (45) calendar days, a summary of EPA's proposed corrective measures and EPA's justification for its selection. Included in the justification will be a copy of the RFI and CMS Report for the facility.

I. Following the public review and comment period provided for in Subparagraph H above, plaintiff shall notify defendant of the corrective measures selected by plaintiff for the subject facility. If the corrective measures recommended in the CMS Report are not the corrective measures selected by plaintiff after consideration of public comments, plaintiff shall inform defendant in writing of the reasons for the decision. Defendant shall modify the RFI and CMS based upon public comment, if directed to do so by plaintiff, within the time frame established by EPA in the notification.

J. The Administrative Record supporting the selection of the corrective measures for the subject facility will be available for public review at the following location:

RCRA and FF Branch  
Waste Compliance Section  
Region IV

United States Environmental Protection Agency  
345 Courtland Street, NE  
Atlanta, Georgia 30365

K. Within ninety (90) calendar days after defendant's receipt of notification of plaintiff's final selection of the corrective measures for the facility, defendant shall submit to plaintiff and to MSDEQ a Corrective Measures Implementation (CMI) Program Plan. The CMI Program Plan shall be subject to review, modification and approval under the procedures established in Paragraphs X below.

The CMI Program Plan shall be developed in accordance with, at a minimum, RCRA, its implementing regulations and applicable, relevant and appropriate EPA and state guidance documents including those described in Subparagraph A of this Paragraph. The CMI Program Plan shall be developed and performed in a manner consistent with the CMI Scope of Work.

L. The CMI Program Plan shall provide for the design, construction, operation, maintenance and monitoring of corrective measures at the subject facility. In accordance with the provisions of the attached CMI Scope of Work, the CMI Program shall include four principal tasks, as follows: (1) CMI Program Plan, (2) Corrective Measures Design, (3) Corrective Measures Construction, and (4) Reports. These tasks will include the elements outlined in the CMI Scope of Work.

M. The defendant shall commence and complete implementation of the tasks required by the approved workplan and program plan in accordance with the standards, specifications and schedules stated in the particular plan.

N. In the event that the post-closure permit for a Closing Unit is called pursuant to Paragraph IV above, the corrective action process undertaken at the Facility under this Paragraph will be coordinated with the corrective action requirements under the post-closure permit, in a manner to be determined by plaintiff.

VIII. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

A. Defendant is required to establish financial assurance for corrective action at the facility in compliance with 40 CFR 264.101(b).

B. The financial assurance vehicle shall be established and fully funded prior to defendant's implementation of the corrective measures in accordance with the CMI Program Plan.

IX. QUALITY ASSURANCE, QUALITY CONTROL AND SAMPLING

A. Throughout all sample collection and analysis activities, the defendant shall use EPA-approved quality assurance, quality control and chain-of-custody procedures, and where so notified by the MSDEQ, any additional state-approved quality assurance, quality control and chain-of-custody procedures.

B. In addition, the defendant shall:

1. Ensure that laboratories used by defendant for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, Third Edition, November 1986 and subsequent updates), "RCRA Groundwater Monitoring Technical Enforcement Guidance Document"

(OSWER Directive 9950.1, Sept. 1986) or other methods approved by plaintiff. If methods other than the EPA methods included in the above-referenced guidance document are to be used, defendant shall submit all protocols to be used for analyses to plaintiff for approval at least thirty (30) calendar days prior to the commencement of the analyses.

2. Ensure that laboratories used by defendant for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by plaintiff, such laboratories shall perform analyses of samples provided by plaintiff to demonstrate the quality of the analytical data.

3. Notify plaintiff at least ten (10) calendar days in advance of the selection of laboratories which will be used by the defendant and require by contract with each such laboratory that EPA personnel and EPA-authorized representatives have reasonable access to the laboratories and personnel used for analyses. Denial of access to EPA personnel or its representatives constitutes an independent, non-reviewable ground for rejection of that laboratory's data.

4. Use EPA guidance to evaluate all data to be used in plans and reports to be submitted under this Decree. This evaluation shall be provided to plaintiff as part of the plans and reports and shall be updated as required by plaintiff.

C. The defendant shall notify plaintiff in writing at least ten (10) calendar days before engaging in any field activities, such as well drilling, installation of equipment or sampling.

At the request of plaintiff, the defendant shall provide to plaintiff, or allow plaintiff or its authorized representative to take, split samples of all samples collected by the defendant pursuant to this Decree. Similarly, at the request of the defendant, plaintiff shall allow the defendant to take split or duplicate samples of all samples collected by plaintiff under this Decree.

X. REVIEW AND APPROVAL PROCESS

A. Except as otherwise provided in this Decree, each plan, report, permit application or other document submitted to plaintiff and MSDEQ shall be subject to review, modification and approval by plaintiff and MSDEQ.

B. Each plan, report, permit application or other document to be submitted by the defendant to plaintiff shall also be submitted to MSDEQ, and each recipient agency shall be given three copies of each such submission, unless another number of copies is requested by an agency in writing.

C. Each report, plan, or other document submitted by Defendant and approved by plaintiff hereunder shall be deemed incorporated by reference into this Decree as if fully set forth herein.

XI. MODIFICATIONS AND ADDITIONAL WORK

A. In order to protect human health or the environment, plaintiff may determine that work is required in addition to the tasks and deliverables required under this Decree and its attachments. In this event, plaintiff shall direct in writing

that the defendant perform the additional work and shall specify the basis for plaintiff's determination that the additional work is needed. Subject to the dispute resolution provisions of Paragraph XVII below, the defendant shall perform the additional work requested.

B. If defendant declines to undertake some or all of the additional work required pursuant to paragraph A above, plaintiff retains authority to undertake the work at Defendant's expense or to take any other action authorized under CERCLA, RCRA or other applicable statutes or laws.

C. If plaintiff determines that any activities undertaken pursuant to this Decree have caused or may cause a release to the environment of hazardous waste, constituents or substances or a threat to the public health or the environment, plaintiff shall notify defendant of the potential release or threat and may order the defendant (1) to stop immediately any specified activities under this Decree for such period of time as may be needed to abate any such release or threat and (2) to undertake any action which plaintiff determines is necessary to abate such release or threat. Relevant schedules affected by the work stoppage shall be extended by any period during which implementation is stopped by order of plaintiff, provided that the release or threat is not due to noncompliance by defendant with this Decree.

D. Except as provided in Subparagraphs A, B and C above, the obligations of defendant and the schedules for their performance, as set out in the Scopes of Work attached to this



Decree and in the Workplans approved pursuant to this Decree, may be modified only by agreement of the settling parties in writing, which agreement shall be incorporated herein by reference. Such an agreement to modify a Scope of Work or Workplan does not require approval by the Court but shall be effective upon its signature by the representatives of plaintiff and defendant authorized to receive submissions pursuant to Paragraph XII, Subparagraphs A and C below.

E. Except as provided in this Paragraph and in Paragraphs XII and XIII below, the terms of this Decree may be modified only by order of the Court.

#### XII. SUBMISSIONS

A. All documents, including reports, approvals, disapprovals, notifications and other correspondence, required to be submitted pursuant to this Decree, shall be sent by certified mail or by overnight mail to the following addressees, or to such other addressees as the settling parties hereafter may designate in writing:

1. Documents or correspondence to plaintiff shall be sent to:

John Dickinson, Chief  
Waste Compliance Section  
RCRA and FF Branch  
U.S. EPA-Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

2. Additionally, copies of all documents or correspondence to plaintiff related to any matter with respect to which the dispute resolution provisions of Paragraph XVII

have been invoked shall be sent to the addressee designated in Subparagraph 4 below for the appropriate state regulatory agency and to:

Chief  
Environmental Enforcement Section  
Land and Natural Resources Division  
U.S. Department Of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044

3. Documents or correspondence to the defendant shall be sent to:

Plant Manager  
Cedar Chemical Corporation  
Vicksburg Plant  
Rifle Range Road  
Vicksburg, Mississippi 39180

4. Documents or correspondence to the state regulatory agencies shall be sent to:

Mr. Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
Mississippi Department of  
Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39209

5. Documents or correspondence to the defendant related to any matter with respect to which the dispute resolution provisions of Paragraph XVII have been invoked shall be sent to:

Mr. Allen T. Malone, Esq.  
Apperson, Crump, Duzane & Maxwell  
One Commerce Square  
Suite 2110  
Memphis, Tennessee 38103

B. In any instance in which notification by EPA is provided for or required under the terms of this Decree, such notification may be made separately by EPA or jointly by EPA and MSDEQ.

XIII. PROJECT COORDINATORS

A. The settling parties and the MSDEQ designate the following individuals to act as Project Coordinators, to monitor the progress of the activities required under this Decree, to communicate informally concerning problems which have arisen or which are anticipated in the implementation of this Decree and to coordinate communications among defendant, plaintiff and the state regulatory agency:

As to plaintiff:

Ms. Jeaneanne Gettle  
Waste Compliance Section  
RCRA and FF Branch  
U.S. EPA, Region IV  
345 Courtland Street, NE  
Atlanta, Georgia 30365

As to the defendant:

Steve Boswell, Director  
Environmental Affairs  
Vicksburg Plant  
Rifle Range Road  
Vicksburg, Mississippi 39180

As to the state MSDEQ:

Mr. Steve Spengler  
Chief, RCRA TSD Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi

B. Such coordination and informal communication by the Project Coordinators shall not relieve the parties of any notice and reporting requirements set forth elsewhere in this Decree and its attachments.

C. Plaintiff, the defendant and MSDEQ shall each have the unilateral right to change their respective Project Coordinators. Such a change does not require approval of the Court and shall be accomplished by notifying the other Project Coordinators of the change in writing at least seven calendar days prior to the effective date of the change.

#### XIV. ADDITIONAL REPORTING REQUIREMENTS

A. Beginning with the first full month following the effective date of this Decree, the defendant shall provide plaintiff and the MSDEQ with monthly written progress reports. The reports shall be mailed by the tenth day of the month in which they are due and shall conform to the requirements in the relevant Scope of Work. These reports may be submitted in the form of a certified letter with attachments, which may include bar graphs or other graphic material.

B. In the event that a spill or other release of hazardous substances or wastes occurs at the Subject Facility, requiring the notification of state or federal emergency response personnel, the defendant shall also notify the Project Coordinators for plaintiff and MSDEQ within twenty-four (24) hours after the occurrence of the spill or release. Such

notification may be given orally and shall be in addition to any notice otherwise required to be given under federal or state law.

XV. ACCESS

A. Until termination of this Decree, plaintiff, MSDEQ, and their employees, contractors and duly designated representatives, shall have access to the subject facilities at any reasonable time. Nothing in this Decree shall be construed to limit any rights of access that plaintiff or MSDEQ have under federal, state or local laws, regulations or permits.

Plaintiff's right of access under this Decree shall be in addition to, and not in substitution for, its right of entry and access under applicable federal laws. The rights of access of plaintiff and MSDEQ under this Decree shall include, but not be limited to, access for the purposes of:

1. Inspecting and verifying compliance with this Decree;
2. Monitoring the progress of activities required by this Decree;
3. Inspecting sampling data and all other records generated pursuant to this Decree; and
4. Verifying any data or information submitted to plaintiff in accordance with this Decree.

B. To the extent that work required by this Decree, or by any plan approved pursuant to this Decree, must be performed in whole or in part on property not owned or controlled by the defendant, defendant shall use its best efforts to obtain site access agreements from the present owners of such property within twenty (20) calendar days after approval of any plan for

which site access is required. "Best efforts" as used in this paragraph shall include, at a minimum, a certified letter from the defendant to the present owners of such property requesting access agreements to permit the defendant, plaintiff, the MSDEQ and their authorized representatives access to such property. If the defendant does not obtain necessary agreements for access within twenty (20) calendar days after plaintiff's approval of a plan which identifies the need for access, the defendant shall inform plaintiff in writing of both their efforts to obtain access agreements and their failure to obtain such agreements, within ten (10) calendar days after their efforts cease. Plaintiff may then assist the defendant in obtaining access or itself undertake to obtain the required access, by agreement or any other lawful means. Defendant shall bear all costs incurred by Plaintiff in gaining access.

C. In connection with any voluntary transfer of ownership or control of all or any part of the subject facilities, the defendant shall require the transferee to agree in writing to allow access to the subject facility by the defendant, plaintiff, and MSDEQ, and their employees, contractors, and duly designated representatives.

**XVI. DELAY IN PERFORMANCE/STIPULATED PENALTIES**

A. Unless there has been a written modification of a compliance date by agreement of the parties or there has been excusable delay as defined under the "Force Majeure" provisions contained in Paragraph XVIII below, for each day or part thereof that defendant fails to comply with any submission, requirement

or other deadline set forth in this Decree, including any deadline in a schedule set forth in a plan approved pursuant to this Decree, the defendant shall pay to plaintiff the following stipulated penalties:

1. For failure to commence work as prescribed in this Consent Decree and EPA approved plans and reports under this Decree: 4,000 dollars (\$4,000) per day per violation for one to seven days of delay , 6,000 dollars (\$6,000) per day per violation for eight to fifteen days of delay and 10,000 dollars (\$10,000) per day per violation for each day of delay or part thereof, thereafter;

2. For failure to submit any preliminary and final reports or workplans, at the time required pursuant to this Consent Decree: 3,000 dollars (\$3,000) per day per violation for one to seven days of delay, 5,000 dollars (\$5,000) per day per violation for eight to fifteen days of delay and 9,000 dollars (\$9,000) per day per violation for each day of delay or part thereof, thereafter;

3. For failure to submit other deliverables required by this Consent Decree: 2,000 dollars (\$2,000) per day per violation for one to seven days of delay, 4,000 dollars (\$4,000) per day per violation for eight to fifteen days of delay and 8,000 dollars (\$8,000) per day per violation for each day of delay or part thereof, thereafter.

4. For other failure to comply with provisions of this Consent Order after notice by EPA of noncompliance and a reasonable opportunity to comply: 10,000 dollars (\$10,000) per

day per violation for each day of noncompliance or part thereof, thereafter.

B. Separate stipulated penalties shall accrue with respect to each submission, requirement and deadline. Nothing herein shall preclude the simultaneous and cumulative accrual of such separate penalties for separate violations of this Consent Decree.

C. Stipulated penalties under this Paragraph shall accrue from the date of the violation and shall be due and payable 30 days after demand by plaintiff for payment. Stipulated penalties which are due and payable shall be paid by certified check delivered to:

U.S. Environmental Protection Agency

The check shall be made payable to the "United States Treasury" and shall reference United States v. Cedar Chemical Corporation, Civil No. \_\_\_\_. The defendant shall simultaneously send a copy of the transmittal letter to the addressee specified for plaintiff in Paragraph XII, Subparagraph A above.

D. If the defendant refuses to pay stipulated penalties, plaintiff may exercise any and all legal remedies available to plaintiff. However, nothing in this Paragraph shall prohibit, alter or in any way limit plaintiff's right to seek any other remedies or sanctions available by virtue of the defendant's violation(s) of this Decree or of the statutes and regulations upon which this Decree is based.



E. The provisions of this Decree, including the provision for the payment of stipulated penalties pursuant to this Paragraph, shall not limit or affect the claims of plaintiff or defendant as against any third parties who are not parties to this Decree.

F. The defendant may dispute plaintiff's right to the stated amount of stipulated penalties by invoking the dispute resolution procedures established under Paragraph XVII below. Payment, but not accrual, of stipulated penalties with respect to any issue so disputed shall be stayed pending resolution of the dispute. If the defendant does not prevail upon resolution of the dispute, plaintiff may collect all stipulated penalties which accrued prior to and during the period of dispute. If the defendant prevails upon resolution of the dispute, no penalties shall be payable.

#### XVII. DISPUTE RESOLUTION

A. The settling parties agree to use their best efforts to resolve all disputes or differences of opinion informally and in good faith. If a disagreement is not resolved informally, the defendant may pursue the matter formally by invoking the dispute resolution procedures of this Paragraph. The dispute resolution provisions of this Paragraph shall be applicable to any and all disputes which may arise under this Decree.

B. If the defendant disagrees, in whole or in part, with any decision or directive of plaintiff, the defendant shall promptly notify plaintiff and MSDEQ in writing of its objection(s) and each ground therefor. The notice shall set

forth the specific points in dispute, the position that the defendant asserts should be adopted as consistent with the requirements of this Decree, the grounds for the defendant's position and any other facts which it desires plaintiff to consider.

C. The parties shall have a period of twenty (20) calendar days after plaintiff's receipt of the defendant's written objections to attempt to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by representatives of each settling party and incorporated herein by reference.

D. If the parties are unable to reach an agreement within twenty (20) calendar days after plaintiff's receipt of the defendant's written objections, plaintiff shall then provide to the defendant, within ten (10) calendar days, its written decision on the dispute. Plaintiff's decision shall control unless the defendant files a petition for resolution of the dispute with the Court, pursuant to Subparagraph E below.

E. If plaintiff has issued a written decision on a dispute pursuant to Subparagraph D above, plaintiff's position shall control the issue unless the defendant files with the Court a petition which describes the nature of the dispute and includes a proposal for its resolution. The defendant's petition must be filed no later than thirty (30) calendar days after its receipt of plaintiff's written decision. Plaintiff shall then have thirty (30) calendar days to respond to the petition. In any such dispute to be resolved by the Court, the defendant shall bear the burden of proof.

XVIII. FORCE MAJEURE

A. The defendant shall perform the requirements of this Decree, its attachments and any plans approved pursuant to this Decree within the time limits set forth therein, unless the performance is prevented or delayed by events which constitute a force majeure. A force majeure is defined as any event arising from causes not foreseeable and beyond the control of defendant, which could not be overcome by due diligence and which delays or prevents performance. Increased costs of performance of the terms of this Decree, changed economic circumstances or the defendant's financial inability to carry out the provisions of this Decree shall not constitute force majeure events.

B. The defendant shall notify plaintiff in writing within ten (10) calendar days after it becomes aware of events which the defendant knows or should know may constitute a force majeure. Such written notice shall include the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay, and the timetable by which defendant intends to implement these measures. The defendant's failure to comply with the notice requirements of the two preceding sentences with respect to an event which is later claimed to constitute a force majeure shall constitute a waiver of its right to invoke the force majeure provisions of this Paragraph and to request a waiver of any of the requirements of this Decree with respect to that event.

C. If the settling parties agree that the delay or anticipated delay has been caused by a force majeure event, the time for performance hereunder will be extended for a period equal to the delay resulting from the event. This extension shall be accomplished through a modification pursuant to Paragraph XI, Subparagraph D above.

D. If plaintiff does not agree with defendant that any delay in the achievement of the requirements of this Decree has been caused by a force majeure event, plaintiff shall so notify defendant in writing. Plaintiff's decision shall control unless the defendant pursues a resolution of the dispute, pursuant to Paragraph XVII above.

E. In the event that the defendant invokes the dispute resolution provisions of Paragraph XVII of this Decree with respect to the application of this Paragraph, defendant shall have the burden of proving that the delay was caused by a force majeure event.

#### XIX. WAIVER OF RIGHTS OF APPEAL

Except as expressly provided herein, defendant waives any and all rights of judicial and administrative review or appeal otherwise available to them under the applicable federal and state laws and regulations. The mechanisms for dispute resolution provided herein shall constitute the sole remedy available to defendant in the event of any dispute concerning the interpretation or implementation of this Decree. However, nothing herein shall prohibit either party from appealing an adverse decision under Paragraph XVII.

XX. COVENANT NOT TO SUE

Effective upon termination of this Decree pursuant to Paragraph XXVI below, plaintiff covenants not to sue the defendant for relief pursuant to Section 3008(a), (g) and (h) of RCRA, 42 U.S.C. § 6928(a), (g) and (h), for violations of RCRA which arose prior to entry of this Decree and which are alleged in plaintiff's Complaint.

XXI. RESERVATION OF RIGHTS

A. Except as expressly provided in Paragraph XX above, plaintiff reserves any and all rights and remedies available to it, including, without limitation, the right to take enforcement action pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, and to take enforcement or response actions pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601 et seq., as amended.

B. Neither plaintiff nor the defendant waives any legal or equitable claims or defenses against persons not party to this Decree.

C. Nothing in this Decree shall constitute an admission by any of the settling parties.

D. Compliance by the defendant with the terms of this Decree shall not relieve defendant of its obligations to comply with RCRA and its implementing regulations, including any changed statutory or regulatory requirements thereunder, nor shall it relieve the defendant of its obligations to comply with other applicable local, state or federal laws or regulations.

E. This Decree is not intended to be, nor shall it be construed as, a permit under any state or federal law or regulation.

XXII. INDEMNIFICATION

Defendant agrees to indemnify and save and hold harmless the United States government, its agencies, departments, agents and employees, from any and all claims or causes of action arising from or on account of the acts or omissions of defendant or its officers, employees, agents, contractors, receivers, trustees, successors, assigns or any other person or entity acting on its behalf in carrying out activities pursuant to this Decree.

XXIII. RECORD PRESERVATION

Defendant shall preserve, during the pendency of this Decree and for a minimum of six (6) years after its termination, at least one copy of all records and documents in its possession or in the possession of its divisions, employees, agents, accountants, contractors or attorneys, which relate in any way to this Decree, notwithstanding any document retention policy of any defendant. The defendant shall notify plaintiff thirty (30) calendar days prior to the destruction of any such records or documents and shall provide plaintiff with the opportunity to inspect and take possession of any such records or documents. The defendant shall require that its employees, agents, accountants, contractors and attorneys comply with the provisions of this Paragraph.

XXIV. PUBLIC ACCESS TO INFORMATION

All data, factual information and documents submitted by the defendant to plaintiff or to MSDEQ pursuant to this Decree shall be subject to public inspection or release unless at the time of submission the defendant asserts a confidential business information or trade secret claim pursuant to applicable federal or state law. Information for which such an assertion is made shall be treated in accordance with the requirements of 40 C.F.R. Part 2 and the applicable state statutes and regulations. Defendant's failure to assert such a claim at the time the information is submitted to EPA or MSDEQ shall preclude defendant from thereafter raising any objection to the release of the information. The defendant shall not assert a claim of confidentiality regarding any hydrogeological, chemical or sampling data generated pursuant to this Decree.

XXV. ADMISSIBILITY OF DATA

Defendant shall not object to the admissibility in any subsequent proceeding of analytical data that it or anyone acting on its behalf gathered or generated pursuant to this Decree on the grounds of hearsay or failure to maintain chain of custody.

XXVI. EFFECTIVE PERIOD OF THE DECREE

- A. This Decree is effective upon its entry by the Court.
- B. The defendant shall notify plaintiff when it determines that it has fully complied with all the terms of this Decree. Within 120 days of receipt of said notice, plaintiff shall inform the defendant in writing whether the terms of this Decree have been fully satisfied. If plaintiff agrees with defendant,

the settling parties shall file a joint motion with the Court to terminate this Decree. If plaintiff disagrees with the defendant as to their full compliance with this Decree, then the defendant may seek to resolve the dispute pursuant to Paragraph XVII above.

XXVII. RETENTION OF JURISDICTION

This Court shall retain jurisdiction over this Decree for the purpose of ensuring compliance with its terms and conditions.

XXVIII. COSTS AND ATTORNEYS FEES

Each settling party shall bear its own costs and attorneys fees in this action.

XXIX. NOTICE REQUIREMENTS

The parties acknowledge that final approval by plaintiff and the entry of this Decree are subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

WHEREFORE, the parties enter into this Decree and respectfully submit it to the Court in order that it may be approved and entered.

DONE AND SO ORDERED this 17th day of April, 1992.

William H. Ziegler, Jr.

United States District Judge



For the Defendant Cedar Chemical Corporation:

*J. L. Adams / P.M. Mgr*  
NAME/TITLE  
CEDAR CHEMICAL CORPORATION

12/11/90  
Date


*Allen T. Malone*  
ALLEN T. MALONE, ESQ.  
Apperson, Crump, Duzane & Maxwell  
One Commerce Square  
Suite 2110  
Memphis, Tennessee 38103  
(901) 525-1711

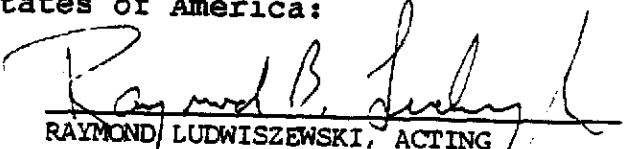
1/22/91  
Date


*William L. Smith*  
WILLIAM L. SMITH, ESQ.  
Brunini, Grantham, Grower & Hewes  
1400 Trustmark Building  
248 East Capitol Street  
Jackson, Mississippi 39201  
(601) 948-3101


12/11/90  
Date

For the United States of America:

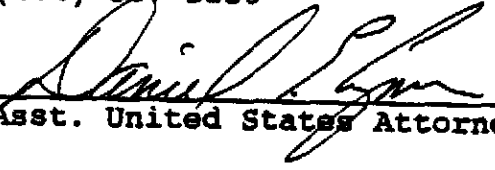
  
ROGER C. EGG, Acting  
Assistant Attorney General  
U.S. Department of Justice  
Environment and Natural  
Resources Division  
10th and Pennsylvania Avenue  
Washington, D.C. 20530


  
RAYMOND LUDWISZEWSKI, ACTING  
Assistant Administrator  
Office of Enforcement  
U.S. Environmental Protection  
Agency, Region IV  
401 M. Street, S.W.  
Washington, D.C. 20530


  
for GREER C. TIDWELL  
Regional Administrator  
U.S. Environmental Protection  
Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365  
(404) 347-4727

  
JOHN R. BARKER  
Regional Counsel  
U.S. Environmental Protection  
Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365  
(404) 347-2256

GEORGE L. PHILLIPS  
United States Attorney  
So. District of Mississippi  
Jackson, Mississippi  
(601) 965-4480

  
Asst. United States Attorney

  
KAREN DWORKIN  
Environmental Enforcement  
Section  
Land and Natural Resources  
Division  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20530  
(202) 368-2778

  
ZYLPHA K. PRYOR  
Associate Regional Counsel  
U.S. Environmental Protection  
Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365  
(404) 347-2641

---

KAREN DWORKIN  
Environmental Enforcement  
Section  
Land and Natural Resources  
Division  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20530  
(202) 368-2778

---

ZYLPHA K. PRYOR  
Associate Regional Counsel  
U.S. Environmental Protection  
Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365  
(404) 347-2641



ATTACHMENT A

SCOPE OF WORK FOR INTERIM MEASURES (IM)

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

ATTACHMENT A

SCOPE OF WORK FOR INTERIM MEASURES (IM)

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

PURPOSE

The purpose of Interim Measures (IM) is to mitigate the potential threat to human health and the environment. Interim measures must be consistent with and integrated into any long term solution at the Facility.

SCOPE

The Interim Measures program consists of the following four tasks:

- Task I      Interim Measures Workplan
  - A.   Interim Measures Objectives
  - B.   Health and Safety Plan
  - C.   Community Relations Plan
- Task II     Interim Measures Design Program
  - A.   Design Plans and Specifications
  - B.   Operations and Maintenance Plan
  - C.   Project Schedule
  - D.   Final Design Documents
- Task III    Interim Measures Construction Quality Assurance Plan
  - A.   Construction Quality Assurance Objectives
  - B.   Inspection Activities
  - C.   Sampling Requirements
  - D.   Documentation
- Task IV     Reports and Other Submissions
  - A.   Progress Reports
  - B.   Interim Measures Workplan
  - C.   Final Design Documents
  - D.   Draft Interim Measures Report
  - E.   Final Interim Measures Report

TASK I      INTERIM MEASURES WORKPLAN

The Defendant shall prepare an Interim Measures Workplan. The Workplan shall include the following:

#### A. Interim Measures Objectives

The Workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and to the extent possible, be consistent and integrated with any long-term solution at the Facility. The Interim Measures Workplan will include a discussion of the technical approach, engineering design, engineering plans, schedules, budget, and personnel. The Workplan will also include a description of qualifications of personnel performing or directing the interim measures, including contractor personnel, and document the overall management approach to the interim measures. Specific interim measures shall include, but not be limited to:

##### 1. Management of surface impoundments

Defendant shall prepare a report, within thirty (30) days of the effective date of this Order, providing information on the current status of the surface impoundment, including but not limited to, engineering drawings and specifications depicting the closure or planned closure of the unit. Additionally, the report shall include a topographic site plan showing the inlet to the surface impoundment and the source of water flow into the inlet during rain events as well as dry periods and showing areas of direct run on.

##### 2. Management of the landfill

The landfill will be maintained so as to prevent potential releases of hazardous constituents and erosion of the existing cap. Vegetation on the cap shall be maintained and soil with a vegetative cover shall be placed in areas of visual contamination. The IM Workplan shall include details for this maintenance.

##### 3. Management of surface water runoff and areas with contaminated soils

The IM Workplan shall include a plan for ensuring that areas where soils have been sampled, and found to contain contaminants or areas which the defendant knows to be contaminated, shall be managed to prevent infiltration or migration of the contaminants, including but not limited to, that caused by runoff of surface water. At a minimum, this plan shall include the areas identified in Figure A-1 and Table A-1.

The soils and sediment within inactive process areas in the South plant are contaminated with pesticides. The surface drainage from the South plant is intended to flow to the surface impoundment where contaminated sediment will settle within the surface impoundment or be filtered out by the carbon in the carbon absorption vessels. In order to accomplish that objective, the

surface water running in ditches along the railroad track south of the inactive atrazine plan must be forced to flow into the south sump from which water is pumped into the surface impoundment. The IM Workplan shall include a plan for ensuring that the surface water is managed in the above manner.

The sampling, analysis and corrective measures studies for these areas will be left to the RFI/CMS process; however, the IM Workplan shall include details for the construction and installation of a temporary device or devices to prevent further infiltration or migration of potentially contaminated sediment into the areas identified in Table A-1 and Figure A-1. The temporary devices may include, but are not limited to:

- caps, and
- infiltration fences.

The IM Workplan shall include construction details of the temporary devices, and an Operating and Maintenance Procedure which shall provide for repair and maintenance following periods of substantial rainfall, or other events which result in repair or maintenance being necessary for the continued effective operation of the devices.

This IM Workplan shall be submitted within thirty (30) days of the effective date of the consent decree.

#### 4. Management of sumps and catch basins

Within seven (7) calendar days of the effective date of the consent decree, the defendant shall begin removal of spilled or leaked hazardous waste constituents and accumulated precipitation from sumps and catch basins, if these units are not intended to be used for drainage of precipitation. After removal of waste, the defendant shall close or cover the sumps and catch basins so as to preclude subsequent accumulation of hazardous waste constituents or precipitation. If the collected material is a hazardous waste under 40 CFR Part 261, it is subject to management as a hazardous waste in accordance with all applicable requirements of 40 CFR Parts 260 through 270. Subsequent to the initial removal of material from the sumps, the defendant shall remove any additional material which accumulates in them, within four (4) days of its accumulation.

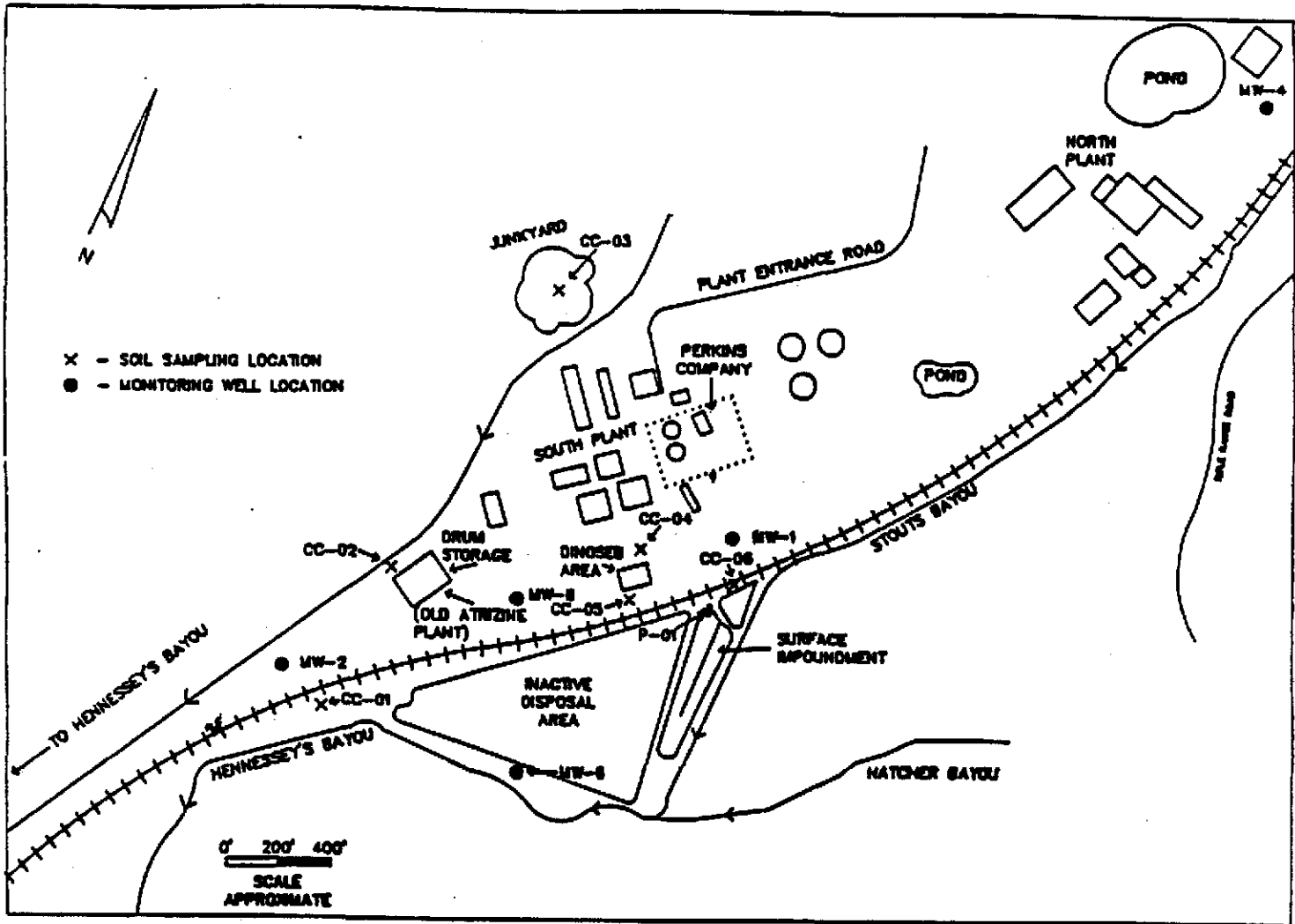
#### 5. Monitoring of Ground Water

The IM Workplan shall provide for modification of the existing ground water monitoring program based upon information available at the time of the Workplan development. This plan shall ensure that all hazardous waste management units, and solid waste management units or areas of concern which have known releases, have a sufficient number of monitoring wells to immediately detect a release from the unit or to define the rate and extent of contamination.



FIGURE A-1

AREAS FOR MANAGEMENT OF CONTAMINATED SEDIMENTS



Modified from U.S. Environmental Protection Agency, February, 1987. RCRA Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.

TABLE A-1

## AREAS OF CONTAMINATED SOILS AT VICKSBURG CHEMICAL CORPORATION

Location	Sample Reference ID Number
Small valley (mud flat) at the west corner of the landfill	CC-01a, VL-003b
Eroded area east of the landfill	VL-002
Area adjacent to the hazardous container (drum) storage area	CC-02, Fc
Junkyard north of the south plant	CC-03
Area north of the dinoseb production area	CC-04, G
Area between the dinoseb area and the Illinois Central Railroad	CC-05
Area between the surface impoundment at the south plant and the Illinois Central Railroad	CC-06

## Notes:

The descriptions of the locations in this table are the best available descriptions from the source documents that were used. These documents are listed below.

- a. Source of information for samples numbered CC-01 through CC-06 -- U.S. Environmental Protection Agency, February 1987. RCRA Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.
- b. Source of information for samples numbered F and G -- Jack McCord, MDNR, September 22, 1986. Memorandum to file. Subject: September 3, 1986 Sampling Trip to Vicksburg Chemical.
- c. Source of information for samples numbered VL-002 and VL-003 -- U.S. Environmental Protection Agency, January 26, 1982. Report: Hazardous Waste Site Investigation, January 22, 1982, Vertac Chemical Corporation, Vicksburg, Mississippi.

The IM Workplan shall include a Sampling and Analysis Plan which specifies procedures and techniques for sample collection, sample preservation and shipment, analytical procedures and chain of custody control.

Subsequent to the modification of the groundwater monitoring program and implementation of the sampling and analysis plan, the Defendant shall submit an annual groundwater monitoring report on or before March 1 following each calendar year. This report shall include, at a minimum, the calculated rate of migration of hazardous waste or hazardous waste constituents in the groundwater, the calculated rate of migration of the groundwater, and a summary of groundwater data previously generated.

**B. Health and Safety Plan**

Defendant shall prepare a facility Health and Safety Plan.

**1. Major elements of the Health and Safety Plan shall include:**

- a. Facility description including availability of resources such as roads, water supply, electricity, and telephone service;
- b. Description of the known hazards and an evaluation of the risks associated with each activity conducted, including, but not limited to on- and off-site exposure to contaminants during the implementation of interim measures at the Facility.
- c. A list of key personnel and alternates responsible for site safety, response operations, and for protection of public health;
- d. Delineation of the work area;
- e. Protection levels to be worn by personnel in work area;
- f. Procedures to control site access;
- g. Decontamination procedures for personnel and equipment;
- h. Site emergency procedures;
- i. Emergency medical care for injuries and toxicological problems;
- j. Description of requirements for an environmental surveillance program;
- k. Specifications for any routine and special training required for responders; and
- l. Procedures for protecting workers from weather-related problems.

2. The Facility Health and Safety Plan shall be consistent with:

- a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- b. United States Environmental Protection Agency (EPA) Order 1440.1 - Respiratory Protection;
- c. EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;
- d. Facility Contingency Plan;
- e. EPA Standard Operating Safety Guide (1984);
- f. OSHA regulations, particularly in 29 CFR 1910 and 1926;
- g. State and local regulations; and
- h. Other EPA guidance as provided.

C. Community Relations Plan

Defendant shall prepare a written plan, for the dissemination of information to the public, regarding interim measure activities and results. In the event that public meetings are scheduled, defendant shall prepare fact sheets and be present for participation in the meetings.

INTERIM MEASURES DESIGN PROGRAM

The Interim Measures Design Program shall be incorporated in the Interim Measures Workplan to implement the interim measure(s) at the Facility. The Interim Measures Design Program includes four activities: design plans and specifications, operations and maintenance plans, project schedules, and final design documents. The design program shall include measures discussed in the Interim Measures Workplan objectives.

A. Design Plans and Specifications

Defendant shall develop clear and comprehensive design plans and specifications which include but are not limited to the following:

1. Discussion of the design strategy and the design basis, including:
  - a. Compliance with all applicable or relevant environmental and public health standards; and
  - b. Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance including:
  - a. Use of currently accepted environmental control measures and technology;
  - b. The constructability of the design, and
  - c. Use of currently acceptable construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions;
4. Discussion of the possible sources of error and references to possible operation and maintenance problems;
5. Detailed drawings of the proposed design including:
  - a. Qualitative flow sheets;
  - b. Quantitative flow sheets;
  - c. Facility layout; and
  - d. Utility locations.
6. Tables listing materials, equipment and specifications;
7. Tables giving material balances; and
8. Appendices including:
  - a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);
  - b. Derivation of equations essential to understanding the report; and
  - c. Results of laboratory or field tests.

General correlation between drawings and technical specifications is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, Respondent shall coordinate and cross-check the specifications and drawings and complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

## **B. Operation and Maintenance Plans**

Defendant shall prepare an Operation and Maintenance Plan to cover both implementation and long-term maintenance of the interim measures. The plan shall be composed of the following elements:

### **1. Equipment start-up and operator training:**

Defendant shall prepare and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up and operation of the treatment systems, and training covering appropriate operational procedures once the start-up has been successfully accomplished.

### **2. Description of normal operation and maintenance (O&M):**

- a. Description of tasks for operation;
- b. Description of tasks for maintenance;
- c. Description of prescribed treatment or operation conditions;
- d. Schedule showing frequency of each O&M task; and
- e. Common and/or anticipated remedies.

### **3. Description of routine monitoring and laboratory testing:**

- a. Description of monitoring tasks;
- b. Description of required laboratory tests and their interpretation;
- c. Required QA/QC; and
- d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

### **4. Description of equipment:**

- a. Equipment identification;
- b. Installation of monitoring components;
- c. Maintenance of site equipment; and
- d. Replacement schedule for equipment and installed components; and

5. Records and reporting mechanisms required:

- a. Daily operating logs;
- b. Laboratory records;
- c. Mechanism for reporting emergencies;
- d. Personnel and maintenance records; and
- e. Monthly/annual reports to Federal/State agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

Defendant shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Defendant shall specifically identify dates for completion of the project and major interim milestone(s) which are enforceable terms of this Order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specifications (100% complete), the Final Draft Operation and Maintenance Plan, and Project Schedule. Defendant shall submit the final documents 100% complete with reproducible drawings and specifications. The quality of the design documents should be such that Defendant would be able to include them in a bid package and invite contractors to submit bids for the construction project.

INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

The Interim Measures Construction Quality Assurance (CQA) Plan shall be incorporated in the Interim Measures Workplan to ensure, with a reasonable degree of certainty, that a completed interim measure(s) meets or exceeds all design criteria, plans, and specifications. The CQA Plan must be submitted to EPA for approval prior to the start of construction. This CQA Plan shall include the following elements: construction quality assurance objectives, inspection activities, and documentation. Upon EPA and MSD&G review, and EPA approval of the CQA Plan, Defendant shall construct and implement the interim measures in accordance with the approved design, schedule, CQA plan, and operation and maintenance plan.

A. Construction Quality Assurance Objectives

In the CQA Plan, Defendant shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to, the following: responsibility and authority, personnel qualifications, inspection activities, sampling requirements, and documentation. The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.), and key personnel involved in the construction of the interim measure shall be described fully in the CQA Plan. Defendant must identify a CQA officer and the necessary supporting inspection staff.

B. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA Plan. The Plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited, to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, Defendant shall conduct the following activities:

1. Preconstruction inspection and meeting

Defendant shall conduct a preconstruction inspection and meeting to:

- a. Review methods for documenting and reporting inspection data;
- b. Review methods for distributing and storing documents and reports;
- c. Review work area security and safety protocol;
- d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
- e. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person, and minutes should be transmitted to all parties.



## 2. Prefinal inspection

Upon preliminary project completion, Defendant shall notify EPA and MBPC for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the EPA-approved interim measure. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by Defendant. Defendant will certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

## 3. Final inspection

Upon completion of any outstanding construction items, Defendant shall notify EPA and MSDEQ for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the project site. The prefinal inspection report shall be used as a checklist, with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

## 4. Sampling and testing requirements

The CQA Plan shall present sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems.

## C. Documentation

Reporting requirements for CQA activities shall be described in detail in the CQA Plan. This plan shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports, and final documentation.

Provisions for the final storage of all records shall be presented in the CQA Plan.

## REPORTS

The Interim Measures Workplan shall include reporting requirements. The reports shall include, but not be limited to the following: progress reports, the Interim Measures Workplan, design plans and specifications, operation and maintenance plan, final design documents, and the draft and final interim measures report.

**A. Progress Reports**

Defendant shall, at a minimum, provide EPA and MSDEQ with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the interim measures completed;
2. Summaries of all findings;
3. Summaries of all changes made in the interim measures during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

**B. Interim Measures Workplan**

Defendant shall submit an Interim Measures Workplan to EPA and MSDEQ as discussed in this attachment within thirty (30) calendar days of the effective date of this Order.

**C. Final Design Documents**

Defendant shall submit Final Design Documents as discussed in this attachment within thirty (30) calendar days of approval of the Interim Measures Workplan.

**D. Draft Interim Measures Report**

At the "completion" of project construction (except for long-term operation, maintenance and monitoring), Defendant shall submit an Interim Measures Implementation Report to EPA and MSDEQ. The Report shall document that the project is consistent with the design specifications, and that the interim measures are performing adequately. The Report shall include, but not be limited to, the following elements:

1. Synopsis of the interim measures and certification of the design and construction;
2. Explanation of any modifications to the plans and why these were necessary for the project;
3. Listing of the criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also explaining any modification to these criteria;
4. Results of facility monitoring, indicating that the interim measures will meet or exceed the performance criteria; and
5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the Facility.

This report shall include but not be limited to: inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviation from design and material specifications (with justifying documentation), and as-built drawings.

**E. Final Interim Measures Report**

Defendant shall finalize the Interim Measures Workplan and the Interim Measures Implementation Report incorporating comments received on draft submissions.

## FACILITY SUBMISSION SUMMARY

### FACILITY SUBMISSIONS

### DUE DATE \*

INTERIM MEASURES Workplan  
- Interim Measures Objectives  
- Health and Safety Plan  
- Community Relations Plan

Within thirty (30) calendar days  
of the effective date of the  
consent decree

FINAL DESIGN DOCUMENTS  
- Design Plans and Specifications  
- Operation and Maintenance Plan  
- Project Schedule

Within thirty (30) calendar days  
of approval of the workplan

CONSTRUCTION QUALITY ASSURANCE PLAN  
- Construction Quality Assurance  
Objectives  
- Inspection Activities

Within thirty (30) calendar days  
of approval of the workplan

Draft Interim Measures Report

Within sixty (60) calendar days  
of completion of construction

Final Interim Measures Report

Thirty (30) days after receipt  
of EPA and MSDEQ comments on  
Draft Interim Measures Report

Progress Reports

Monthly

Ground Water Monitoring Reports

March 1, annually

ATTACHMENT B

SCOPE OF WORK FOR A RCRA FACILITY INVESTIGATION

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

SCOPE OF WORK FOR A RCRA FACILITY INVESTIGATION (RFI)  
AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

**PURPOSE**

The purpose of this RCRA Facility Investigation (hereafter "RFI") is to determine the nature and extent of releases of hazardous wastes and/or hazardous constituents from regulated units, solid waste management units, and other source areas at the facility and to gather all necessary data to support the Corrective Measures Study. Defendant shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA facility investigation at Cedar Chemical Corporation, in Vicksburg, Mississippi (hereafter "the Facility").

The Defendants shall prepare plans and conduct investigations that satisfy the tasks listed below, which are more specifically developed in the following pages. Such plans and investigations shall be submitted in accordance with the requirements of the Consent Decree, using the applicable guidance listed therein, or as designated by EPA and MSDEQ (hereafter "the Agencies"). All documents shall be certified by appropriate individuals, as specified in the regulations.

**SCOPE**

The RCRA Facility Investigation consists of seven tasks:

Task I: Description of Current Conditions

- A. Facility Background
- B. Nature and Extent of Contamination
- C. Implementation of Interim Measures

Task II: Pre-Investigation Evaluation of Corrective Measures Technologies

Task III: RFI Workplan Requirements

- A. Project Management Plan
- B. Data Collection Quality Assurance Plan
- C. Data Management Plan
- D. Health and Safety Plan
- E. Site Characterization Plan
- F. Community Relations Plan

Task IV: Groundwater Assessment

Task V: Implementation of the Facility Investigation

**Task VI: Investigation Analysis**

- A. Data Analysis
- B. Protection Standards

**Task VII: Laboratory and Bench-Scale Studies**

**Task VIII: Reports and Other Submissions**

- A. Preliminary and Final Workplan Submissions
- B. Progress Reports
- C. Draft and Final RFI Reports
- D. Groundwater Assessment Workplan and Report

**TASK I: DESCRIPTION OF CURRENT CONDITIONS**

Defendant shall submit, within thirty (30) days of the effective date of the Consent Decree, a report summarizing the background information pertinent to the facility, contamination, and interim measures as set forth below. The data gathered during any previous investigations or inspections and other relevant data shall be included. This report shall be subject to the Agencies' review and approval procedures as established in the Consent Decree. Data gathered during any previous investigations or inspections and other relevant data shall be included.

**A. Facility Background**

Defendant's report shall summarize the regional location, pertinent boundary features, general facility physiography, and hydrogeology. The report shall also summarize historical use of the facility for the treatment, storage, or disposal of solid and hazardous wastes including but not limited to those areas or units designated in the RCRA Facility Assessment and the following areas or units (see Figures B-1 and B-2):

- Activated carbon treatment units
- Container (drum) storage area
- Returned product storage area
- Surface impoundment (south plant)
- Wastewater storage tank(s)
- Dinoseb drumming area
- Dinoseb loading/unloading area
- Dinoseb production area
- Landfill (inactive disposal area) and pits used inside the boundaries of the landfill including the area of the former dinoseb wastewater pond
- Equalization/neutralization pond (north plant)
- Pond (north plant)
- Drains, sumps, and catch basins and piping
- Drum storage areas

- Surplus equipment storage
- Neutralization tanks (south plant)
- Chemical crypt

Defendant's report shall include:

1. A map(s) for each item listed below:

Note: The North area must point to the top of the page

- a. General geographic location;
- b. General Cross-sectional map, including but not limited to, Cross-sections of solid and hazardous waste management units;
- c. Property lines, with the owners of all adjacent property clearly indicated;
- d. Topography and surface drainage depicting all waterways, wetlands, floodplains, water features, drainage patterns, and surface-water containment areas;
- e. A survey map showing soil classifications for the entire site;
- f. All tanks, buildings, utilities, paved areas, easements, right-of-ways, and other features; within the property boundaries;
- g. All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980, including but not limited to the areas identified in Task I Section A or in Figures B-1 and B-2;
- h. All known past solid or hazardous waste treatment, storage, or disposal areas regardless of whether they were active on November 19, 1980, including but not limited to the areas identified in Task I Section A or in Figures B-1 and B-2;
- i. All known past and present product and waste underground tanks or piping;
- j. Surrounding land uses (residential, commercial, agricultural, recreational);
- k. The location of all production recovery, underground injection, and ground-water monitoring wells, including but not limited to, RCRA and CERCLA wells. These wells shall be clearly labeled, with ground and top of casing elevations and construction details included (these elevations and details may be included as an attachment);



FIGURE B-1

CEDAR CHEMICAL CORPORATION  
LAYOUT OF THE NORTH PLANT INCLUDING PAST AND PRESENT FEATURES

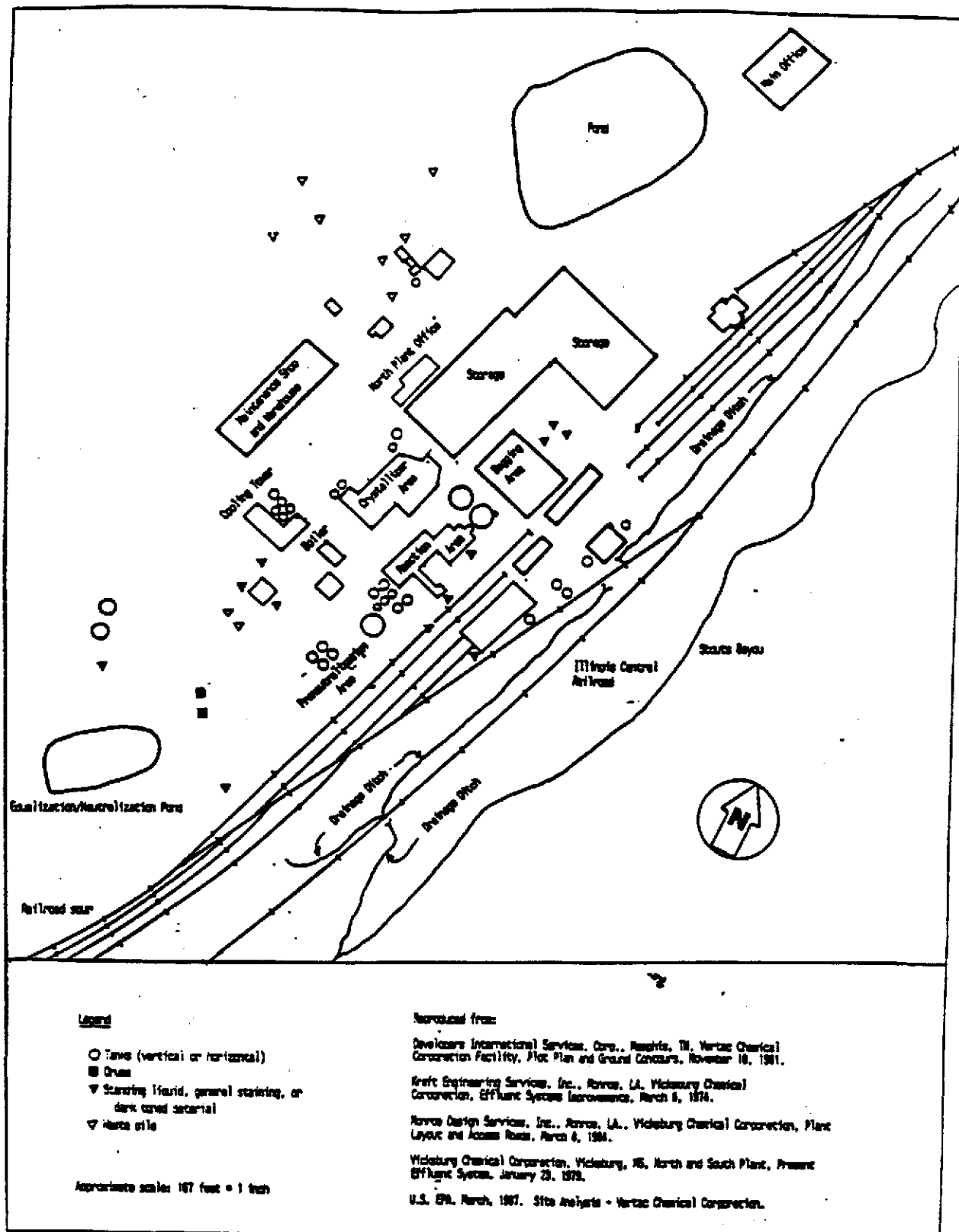
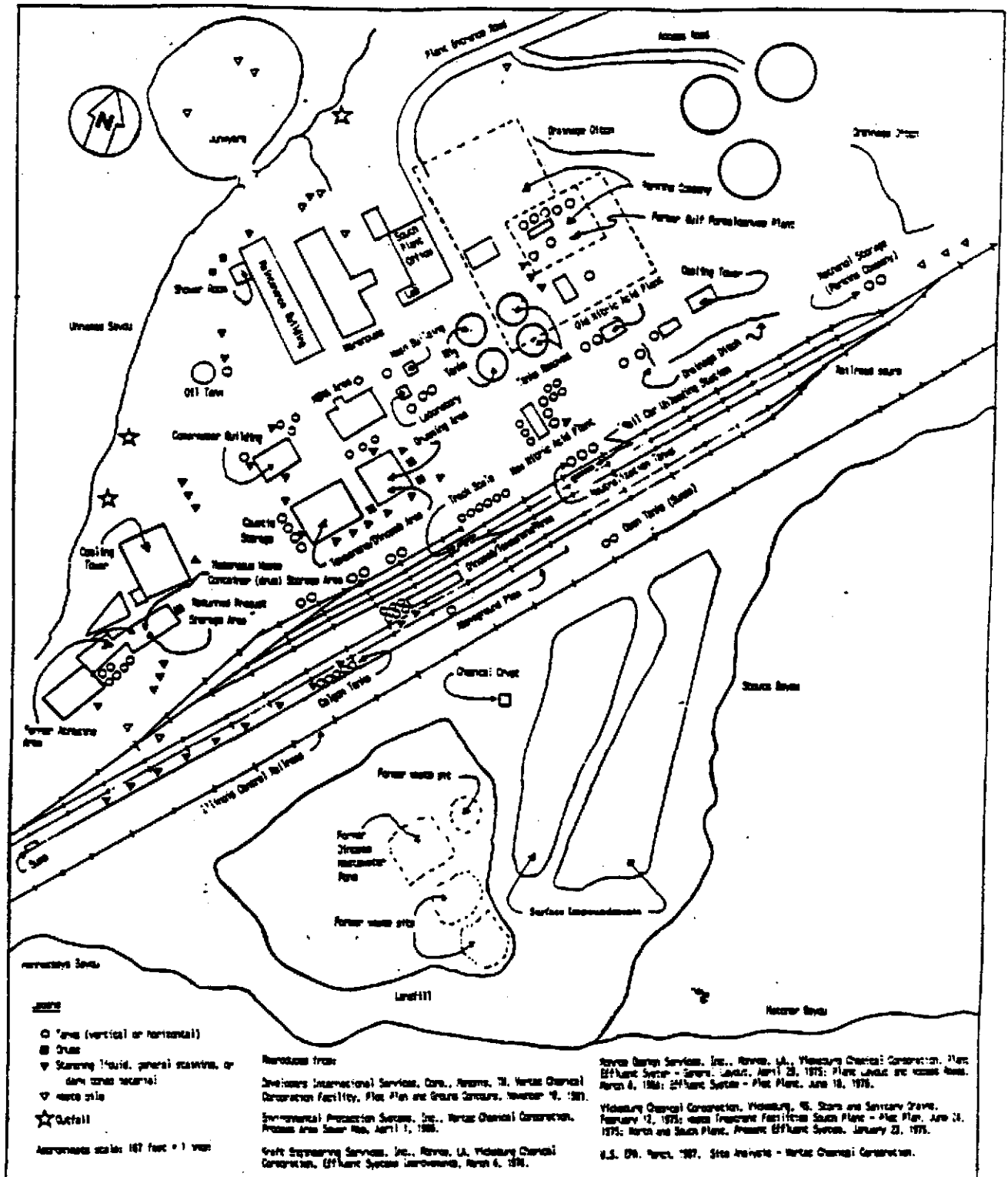


FIGURE B-2

CEDAR CHEMICAL CORPORATION  
LAYOUT OF THE SOUTH PLANT INCLUDING PAST AND PRESENT FEATURES



1. Aerial photographs of the entire facility, one taken in normal light and one taken by infrared photography.

All maps shall be consistent with the requirements set forth in 40 CFR Part 270.14 and be of sufficient detail and accuracy to locate and report all current and future work performed at the site; all maps shall be aligned with the north direction arrows perpendicular to the edge of the page;

2. A history and description of facility ownership and operation, and solid and hazardous waste generation, treatment, storage, and disposal activities at the facility;
3. Dates or periods of past product and waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, State, or Federal response units or private parties), including any inspection reports or technical reports generated as a result of the response; and
4. A summary of past permits requested and/or received, any enforcement actions and their subsequent responses, and a list of documents and studies prepared for the facility.

**B. Nature and Extent of Contamination**

Defendant shall prepare and submit for the Agencies' review and approval, as provided in the Consent Decree, a preliminary report describing the existing information on the nature and extent of contamination at or from the facility. This report shall be submitted in conjunction with the RFI.

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, shall include all regulated units, solid waste management units, spill areas, and other suspected source areas of contamination or areas of concern. For each area, Defendant shall submit to the Agencies a list identifying all waste streams and waste materials subject to storage, treatment, or disposal in each waste management unit. This list shall include all wastes whether it is hazardous or non-hazardous which are destined for the area. These source areas of contamination shall include but are not limited to those identified in Table A-1, Task I Section A or in Figures B-1 and B-2. For each area, Defendant shall, at a minimum, identify the following:

- a. Location of unit/area depicted on a facility map (see requirements of 40 CFR);
- b. Quantities of solid and hazardous wastes;

- c. Hazardous wastes or constituents, to the extent known; and
  - d. Identification of areas where additional information is necessary.
2. Defendant shall prepare an assessment and description of the existing degree and extent of contamination at or from the facility. This shall include:
- a. Available monitoring data and qualitative information on locations and levels of contamination at the facility;
  - b. A minimum of three cross-sectional maps with at least two transecting at right angles to each other delineating local geology, with the extent of the plume(s) superimposed (define a zero line for the plume(s)).
  - c. All potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and
  - d. The potential impact(s) on human health and the environment, including demography, ground-water and surface-water use, and land use.

**C. Implementation of Interim Measures**

Defendant's report shall document interim measures which were or are being undertaken at the facility in accordance with the Interim Measures Workplan in Attachment A. This shall include a discussion of:

- 1. Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
- 2. Design, construction, operation, and maintenance requirements;
- 3. Schedules for design, construction, and monitoring; and
- 4. Schedule for progress reports.

**TASK II: PREINVESTIGATION EVALUATION OF CORRECTIVE MEASURE TECHNOLOGIES**

In conjunction with the submittal of the RFI Workplan, the Defendant shall submit to the Agencies a report that identifies the potential corrective measures technologies that may be used on-site or off-site for the containment, treatment, remediation, and/or disposal of contamination. This report shall also identify any field, laboratory, bench, or pilot

scale data that needs to be collected during the facility investigation to facilitate the evaluation and selection of the final corrective measure or measures (e.g., compatibility of waste and construction materials, information to evaluate effectiveness, treatability of wastes, etc.).

### TASK III: RFI WORKPLAN REQUIREMENTS

Defendant shall prepare a RCRA Facility Investigation (RFI) Workplan and submit it within sixty (60) days of approval of the report due pursuant to Task I above. This RFI Workplan shall include the development of several plans, which shall be prepared concurrently. Each plan shall include a proposed site specific implementation schedule. During the RCRA Facility Investigation, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility specific situation. The RFI Workplan shall include the following:

#### A. Project Management Plan

The RFI Workplan shall contain a Project Management Plan which includes a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan shall also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This Plan shall also document the overall management approach to the RCRA Facility Investigation.

##### 1. Summary of Personnel Qualifications

The Summary of Personnel Qualifications section of the Project Management Plan shall include at a minimum the following:

- a. Name, title and qualifications of the engineer and/or geologist directing the project.
- b. Name, title and qualifications of any contractors, subcontractors and their personnel involved with the project

#### B. Data Collection Quality Assurance Plan

The RFI Workplan shall include a plan to document all monitoring performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

##### 1. Data Collection Strategy

The strategy section of the Data Collection Quality Assurance

Plan shall include, but not be limited to, the following:

- a. Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;
- b. Description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;
- c. Description of the rationale used to assure that the data accurately and precisely represent any characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Examples of factors which shall be considered and discussed include:
  - i) Environmental conditions at the time of sampling;
  - ii) Number of sampling points;
  - iii) Representativeness of selected media; and
  - iv) Representativeness of selected analytical parameters.
- d. Description of the measures to be taken to assure that the following data sets can be compared to each other:
  - i) RFI data generated by Defendant over some time period;
  - ii) RFI data generated by an outside laboratories or consultants versus data generated by the Defendant;
  - iii) Data generated by separate consultants or laboratories, and
  - iv) Data generated by an outside consultant or laboratory over some time period.
- e. Details relating to the schedule and information to be provided in quality assurance reports. The reports should include but not be limited to:
  - i) Periodic assessment of measurement data accuracy, precision, and completeness;
  - ii) Results of performance audits;
  - iii) Results of system audits;
  - iv) Significant quality assurance problems and recommended solutions; and

v) Resolutions of previously stated problems.

## 2. Sampling Strategy and Procedures

The sampling section of the Data Collection Quality Assurance Plan shall discuss:

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Providing a statistically sufficient number of sampling sites;
- c. Measuring all necessary ancillary data;
- d. Determining conditions under which sampling should be conducted;
- e. Determining which media are to be sampled (e.g., ground water, air, soil, sediment, etc.);
- f. Determining which parameters are to be measured and where;
- g. Selecting the frequency of sampling and length of sampling period;
- h. Selecting the types of samples (e.g., composite vs. grab) and number of samples to be collected;
- i. Measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;
- j. Documenting field sampling operations and procedures, including:
  - i) Documentation of procedures for preparing reagents or supplies which become an integral part of the sample (e.g., filters, preservatives and absorbing reagents);
  - ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
  - iii) Documentation of specific sample preservation methods;
  - iv) Calibration of field devices;
  - v) Collection of replicate samples;
  - vi) Submission of field-biased blanks, where

appropriate;

- vii) Potential interferences present at the facility;
  - viii) Construction materials and techniques, associated with monitoring wells and piezometers;
  - ix) Field equipment listing and type of sample containers;
  - x) Sampling order; and
  - xi) Decontamination procedures.
- k. Selecting appropriate sample containers;
  - l. Sample Preservation; and
  - m. Chain-of-custody procedures, including;
    - i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment; and
    - ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

### 3. Field Measurements

The field measurements section of the Data Collection Quality Assurance Plan shall discuss:

- a. Selecting appropriate field measurement locations, depths, etc.;
- b. Providing a statistically sufficient number of field measurements;
- c. Measuring all necessary ancillary data;
- d. Determining conditions under which field measurements should be conducted;
- e. Determining which media are to be addressed by appropriate field measurements (e.g., ground water, air, soil, sediment, etc.);
- f. Determining which parameters are to be measured and where;
- g. Selecting the frequency of field measurements and length of each field measurement period; and



h. Documenting field measurement operations and procedures, including:

- i) Procedures and forms for recording raw data and the exact location, time, and facility-specific considerations associated with the data acquisition;
- ii) Calibration of field devices;
- iii) Collection of replicate measurements;
- iv) Submission of field-biased blanks, where appropriate;
- v) Potential interferences present at the facility;
- vi) Construction materials and techniques associated with monitoring wells and piezometers used to collect field data;
- vii) Field equipment listing;
- viii) Order in which field measurements are to be made; and
- ix) Decontamination procedures.

4. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

a. Chain-of-Custody procedures, including:

- i) Identification of a responsible party to act as sample custodian at the laboratory facility and authorized to sign for incoming field samples, to obtain documents of shipment, and to verify data entered onto the sample custody records;
- ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
- iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersment for analysis.

b. Sample storage procedures and holding times;

c. Sample preparation methods;

d. Analytical procedures, including:

- i) Scope and application of the procedure;
- ii) Sample matrix;
- iii) Potential interferences;
- iv) Precision and accuracy of the methodology; and
- v) Method detection limits.

e. Calibration procedures and frequency;

f. Data reduction, validation and reporting;

g. Internal quality control checks, laboratory performance and systems audits and frequency, including:

- i) Method blank(s);
- ii) Laboratory control sample(s);
- iii) Calibration check sample(s);
- iv) Replicate sample(s);
- v) Matrix-spiked sample(s);
- vi) "Blind" quality control sample(s);
- vii) Control charts;
- viii) Surrogate samples;
- ix) Zero and span gases; and
- x) Reagent quality control checks.

h. Preventive maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Turn-around time.

EPA may conduct a performance audit of the laboratories selected by the Defendant.)

C. Data Management Plan

Defendant shall develop, within the RFI Workplan, and initiate, within the RFI, a Data Management Plan to document and track investigation data and results. This plan shall identify and establish data

documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation, including the following:

1. Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis identification number;
- e. Property or component measured; and
- f. Results of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;
- c. Data reduction for statistical analysis;
- d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- e. Summary data.

3. Graphical Displays

The following data shall be presented in graphic format (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three-dimensional graphs, etc.):

- a. Display sampling location and sampling grid;
- b. Indicate boundaries of sampling area, and areas where more data are required;
- c. Displays levels of contamination at each sampling location;
- d. Display geographical extent of contamination;

- e. Display contamination levels, averages, and maxima;
- f. Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and
- g. Indicate features affecting intramedia transport and show potential receptors.

D. Health and Safety Plan

Defendant shall prepare a facility Health and Safety Plan which ensures the health and safety of workers and other individuals within the immediate area.

- 1. Major elements of the Health and Safety Plan shall include:
  - a. Facility description including availability of resources such as roads, water supply, electricity, and telephone service;
  - b. Description of the known hazards and evaluation of the risks associated with each activity conducted, including but not limited to, on-site and off-site exposure to contaminants during the implementation of interim measures at the facility;
  - c. List of key personnel and alternates responsible for site safety, response operations, and for protection of public health;
  - d. Delineation of the work area;
  - e. Description of protection to be worn by personnel in work area;
  - f. Procedures to control work area access;
  - g. Description of decontamination procedures for personnel and equipment;
  - h. Establish site emergency procedures;
  - i. Emergency medical care for injuries and toxicological problems;
  - j. Description of the environmental surveillance program;
  - k. Description of the safety training provided to personnel in the work area; and
  - l. Establish procedures for protecting workers from weather-related problems.

2. The Facility Health and Safety Plan shall be consistent with:
- a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
  - b. EPA Order 1440.1 -- Respiratory Protection;
  - c. EPA Order 1440.3 -- Health and Safety Requirements for Employees Engaged in Field Activities;
  - d. Facility Contingency Plan;
  - e. EPA Standard Operating Safety Guide (1984);
  - f. OSHA regulations particularly in 29 CFR 1910 and 1926;
  - g. State and local regulations; and
  - h. Other EPA guidance as provided.

E. Site Characterization Plan

The RFI Workplan shall include a Site Characterization Plan which includes provisions for investigating the following areas or, in the alternative, clearly states the technical basis for no further investigation of that area. The plan shall also include a proposed schedule for implementation.

1. Environmental Setting

The Defendants shall collect information to supplement and verify existing information on the environmental setting at the facility. The Defendants shall characterize the following:

a. Hydrogeology

The Defendants shall conduct a program to evaluate hydrogeologic conditions at the facility. This program may utilize information gathered pursuant to any other investigation conducted at the facility. However, at a minimum, the program shall provide the following information:

- i) A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:
  - Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
  - Structural geology: description of local and regional structural features (e.g., folding, faulting, jointing, strike and dip);

- Depositional history;
  - Identification and characterization of areas and amounts of recharge and discharge;
  - Regional and facility specific groundwater flow patterns, both horizontally and vertically; and
  - Characterization of seasonal variations in the groundwater flow regime.
- ii) An analysis of any topographic features that might influence the groundwater flow system. Include stereographic analysis of both normal light and infrared aerial photographs;
- iii) Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:
- Hydraulic conductivity and porosity (total and effective);
  - Lithology, grain size, sorting, degree of cementation;
  - Aquifer interconnection analysis/interpretation of hydraulic interconnection between saturated zones. Identify from field data collected, including aquifer and aquitard testing, the depths, thickness, degree of lateral continuity and hydraulic characteristics of any continuous confining units between water-bearing zones underneath the facility; and
  - The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.);
- iv) Field studies and cores, structural geology and hydrogeology cross sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways, identifying:
- Sand and gravel deposits in unconsolidated deposits;
  - Zones of fracturing or channeling in consolidated or unconsolidated deposits;
  - Zones of higher permeability or low permeability that might direct and restrict the flow of contaminants;

- The uppermost aquifer, that is, the geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs; and
  - Water-bearing zones above the first confining layer that may serve as pathways for contaminant migration, including perched zones of saturation;
- v) From data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, generate a representative description of water level or fluid pressure monitoring, including:
- Water-level contour and/or potentiometric maps;
  - Hydrologic cross sections showing vertical gradients;
  - The flow system, including the vertical and horizontal components of flow; and
  - Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences; and
- vi) A description of man-made influences that may affect the hydrogeology of the site, identifying:
- Active and inactive local water supply and production wells with an appropriate schedule of pumping; and
  - Manmade hydraulic structures (pipelines, french drains, ditches, unlined ponds, septic tanks, NPDES outfalls, retention areas, etc.).

b. Soils

The Defendants shall conduct a program to characterize the soil and rock units above the water table over the entire site. Such characterization may include, but should not be limited to, the following information:

- i) Unified soil classification
- ii) Surface soil distribution (in map form);
- iii) Soil profile, including ASTM classification of soils;
- iv) Transects of soil stratigraphy (include all structural features);
- v) Hydraulic conductivity (saturated and unsaturated);

- vi) Relative permeability;
- vii) Bulk density;
- viii) Porosity;
- ix) Soil sorptive capacity;
- x) Cation exchange capacity (CEC);
- xi) Soil organic content;
- xii) Soil pH;
- xiii) Particle size distribution;
- xiv) Depth of water table;
- xv) Moisture content;
- xvi) Effect of stratification on unsaturated flow;
- xvii) Infiltration;
- xviii) Evapotranspiration;
- xix) Storage capacity;
- xx) Vertical flow rate; and
- xxi) Mineral content.

c. Surface Water and Sediment

The Defendants shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterization shall include, but not be limited to, the following information:

- i) Description of the temporal and permanent surface water bodies including:
  - For open water (e.g. lakes and estuaries): location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
  - For rivers, streams, creeks, springs, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, discharge points, general content and flooding tendencies (i.e., 100 year events);
  - For impoundments: location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment;
  - Drainage patterns; and
  - Evapotranspiration.
- ii) Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients ( $\text{NH}_3$ ,  $\text{NO}_3^-/\text{NO}_2^-$ ,  $\text{PO}_4^{3-}$ ), chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.



iii) Description of sediment characteristics including:

- Deposition area (include a map);
- Thickness profile; and
- Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

d. Air

The Defendants shall provide information characterizing the climate in the vicinity of the facility. Such information shall include, but not be limited to:

i) A description of the following parameters:

- Annual and monthly rainfall averages;
- Monthly temperature averages and extremes;
- Wind speed and direction;
- Relative humidity/dew point;
- Atmospheric pressure;
- Evaporation data;
- Development of inversions; and
- Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence.

ii) A description of topographic and manmade features which affect air flow and emission patterns, including:

- Ridges, hills or mountain areas;
- Surface water bodies (e.g. rivers, streams, surface impoundments);
- Wind breaks and forests;
- Buildings; and
- Canyons or valleys.

2. Source Characterization

The Defendants shall have a program to collect analytical data to characterize completely the wastes and the areas where wastes have been placed, collected or removed, including type, quantity, physical form, disposition (containment or nature of deposits), and facility characteristics affecting release, including facility security fencing, engineered barriers, NPDES outfalls, etc. This shall include quantification of the following specific characteristics, at each source area, subsequent to November 1980 and to the extent known or ascertainable for the period prior thereto:

a. Unit/Disposal Area characteristics:

- i) Location of unit/disposal area;
- ii) Type of unit/disposal area;
- iii) Design features;
- iv) Operating practices (past and present);
- v) Period of operation;
- vi) Age of unit/disposal area;
- vii) General physical conditions; and
- viii) Method used to close the unit/disposal area.

b. Waste Characteristics:

- i) Type of waste placed in the unit:
  - Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent, or listed hazardous wastes);
  - Quantity; and
  - Chemical composition.
- ii) Physical and chemical characteristics:
  - Physical form (solid, liquid, gas);
  - Physical description (e.g., powder, oily sludge);
  - Temperature;
  - pH;
  - General chemical class (e.g., acid, base, solvent);
  - Molecular weight;
  - Boiling point;
  - Viscosity
  - Solubility in water;
  - Cohesiveness of the waste;
  - Vapor pressure;
  - Flash point; and.
  - Density

iii) Migration and dispersal characteristics of the waste:

- Sorption;
- Biodegradability, bioconcentration, biotransformation;
- Photodegradation rates;
- Hydrolysis rates; and
- Chemical transformations.

The Defendants shall document the procedures used in making the above determinations.

3. Contaminant Characterization

The Defendants shall have a program to collect analytical data on groundwater, soils, surface water, sediment and subsurface gas in the vicinity of the facility, in accordance with the sampling and analysis plan. This data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Defendants shall address the following types of contamination at the facility:

a. Groundwater Contamination

The Defendants shall conduct a Groundwater Quality Assessment Program (GQAP), pursuant to the requirements of the Consent Decree. This program shall, at a minimum, satisfy the requirements of 40 CFR §§ 265.93(d)(3) and 270.14(c) and the applicable portions of 40 CFR 264.

b. Soil Contamination

The Defendants shall conduct an investigation to characterize the contamination of the soil and rock units above the saturation zone in the vicinity of a contaminant release. The investigation shall include, but not be limited to, the following information:

- i) A description of the vertical and horizontal extent of contamination;
- ii) A description of contaminant and soil chemical properties within the contaminant source areas and plumes. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
- iii) Specific contaminant concentrations;

- iv) The velocity and direction of contaminant movement; and
- v) An extrapolation of future contaminant movement.

The Defendants shall document the procedures used in making the above determinations.

c. Surface Water and Sediment Contamination

The Defendants shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from contaminant releases at the facility. The investigation shall include, but not be limited to, the following information:

- i) A description of the horizontal and vertical extent of any plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- ii) The horizontal and vertical direction of contaminant movement;
- iii) The contaminant velocity;
- iv) An evaluation of the physical, biological and chemical factors influencing contaminant movement;
- v) An extrapolation of future contaminant movement; and
- vi) A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

The Defendants shall document the procedures used in making the above determinations.

d. Air Contamination

The Defendants shall conduct an investigation to characterize the particulate and gaseous contaminants released into the atmosphere or any structures or buildings. This investigation shall provide the following information:

- i) Description of the horizontal and vertical direction and velocity of contaminant movement;
- ii) The rate and amount of the release; and
- iii) The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

The Defendants shall document the procedures used in making the above determinations.

e. **Subsurface Gas Contamination**

The Defendants shall conduct an investigation to characterize subsurface gases emitted from buried hazardous waste and hazardous constituents in the groundwater. This investigation shall include the following information:

- i) A description of the horizontal and vertical extent of subsurface gases mitigation;
- ii) The chemical composition of the gases being emitted;
- iii) The rate, amount, and density of the gases being emitted; and
- iv) Horizontal and vertical concentrations profiles of the subsurface gases emitted.

The Defendants shall document the procedures used in making the above determinations.

4. **Potential Receptor Identification**

The Defendants shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be obtained. The following characteristics shall be identified:

a. **Local uses and possible future uses of groundwater including:**

- i) Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
- ii) Location of groundwater users, including wells and discharge areas.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

b. **Local uses and possible future uses of surface waters impacting the facility:**

- i) Domestic and municipal (e.g. potable and lawn/gardening watering);
- ii) Recreational (e.g. swimming, fishing);

- iii) Agricultural;
  - iv) Industrial; and
  - v) Environmental (e.g. fish and wildlife propagation).
- c. Human use or access to the facility and adjacent lands including, but not limited to:
- i) Recreation;
  - ii) Hunting;
  - iii) Residential;
  - iv) Commercial;
  - v) Zoning; and
  - vi) Relationship between population locations and prevailing wind direction.
- d. A description of the biota in surface water bodies on, adjacent to, or affected by the facility;
- e. A description of the ecology overlying and adjacent to the facility;
- f. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups; and
- g. A description of any endangered or threatened species near the facility.

**F. Community Relations Plan**

Defendant shall prepare and adhere to a plan for disseminating information to the public regarding investigation activities and results.

**TASK IV: GROUNDWATER ASSESSMENT PROGRAM**

The Defendants shall prepare and submit to EPD and MSDEQ, a Groundwater Assessment Program Workplan (GWA) and an Annual Groundwater Assessment Report. The GWA Workplan shall be due to EPA and MSDEQ within sixty (60) days of the approval of the report describing current conditions (Task I). The Annual Groundwater Assessment Report will be due no later than March 1 of each year.

**A. Groundwater Assessment Workplan**

The Defendant's Groundwater Assessment Program must be capable of determining: 1) Whether hazardous waste or hazardous waste constituents have entered the groundwater; 2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater;

and 3) The concentrations of hazardous waste or hazardous waste constituents in the groundwater. Defendant's Groundwater Assessment Workplan shall include:

1. The number, location, depth of wells, and the rationale for the well placement;
2. Construction logs for each monitoring well;
3. A list of the monitoring parameters, this list shall include indicator parameters as well as the hazardous wastes or hazardous constituents in 40 CFR 261, Appendix IX;
4. Geologic cross-sections;
5. Sampling and analytical methods for those hazardous wastes or hazardous constituents at the facility;
6. Evaluation procedures, including any use of previously-gathered groundwater quality information; and
7. A schedule of implementation.

The Groundwater Assessment Program Workplan is subject to approval by EPA and MSDEQ.

**B. Annual Groundwater Assessment Report**

The Annual Groundwater Assessment Report shall evaluate the groundwater quality, monitoring system and program, as well as the abatement system at the facility. Pursuant to this Decree, wells shall be sampled according to an EPA approved sampling plan as outlined in Section IV.A.3 of the "Scope of Work". The Defendant's Annual Groundwater Assessment shall include, but not be limited to:

1. Groundwater surface elevations measured on a quarterly basis, for each well specified in the Groundwater Assessment Program Workplan;
2. Annual determination of the rate of groundwater flow and direction in the uppermost aquifer;
3. Concentrations or values of the indicator parameters obtained from quarterly analysis at each groundwater monitoring well;
4. Evaluation of the indicator parameters as outlined within the Facility's Groundwater Assessment Program Workplan.
5. Results of the analysis from each groundwater monitoring well as indicated in the Groundwater Assessment Program Workplan;

6. Calculated hydraulic conductivity and effective porosity; and
7. Summary of results.

**TASK V: IMPLEMENTATION OF THE FACILITY INVESTIGATION**

Upon notice of approval or modification of the RFI Workplan, the Defendant shall have fifteen (15) days to begin implementation the RFI Workplan as it is approved or modified, pursuant to the approved schedules contained therein. The Defendant shall conduct those investigations necessary to: characterize the potential pathways of contaminant migration (Environmental Setting); define the source(s) of contamination (Source Characterization); define the degree and extent of contamination (Contamination Characterization); identify actual or potential receptors; and to support the development of alternatives from which corrective measures will be selected. The implementation ("Facility Investigation") shall provide data of adequate technical quality to support the development and evaluation of the corrective measures alternative or alternatives during the Corrective Measures Study.

The RFI activities shall follow the plans set forth in Task III, RFI Workplan Requirements. All sampling and analysis shall be conducted in accordance with the Data Collection Quality Assurance Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

**TASK VI: INVESTIGATION ANALYSIS**

Defendant shall prepare and submit to EPA and MSDEQ, for approval by EPA, an analysis and summary of all Facility investigations and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g. quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support the Corrective Measures Study.

**A. Data Analysis**

The Defendant shall prepare and submit to the Agencies for approval a draft RFI Report which shall contain an analysis and summary of all facility investigations implemented pursuant to Task V and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and the environment, and to support the Corrective Measures Study. The report shall include the identification of applicable protection standards including those under item B below.

**B. Protection Standards**

**1. Ground-Water Protection Standards**

For regulated units, Defendant shall provide information to support the Agencies selection/development of Groundwater Protection Standards



for all of the Appendix IX constituents found in the ground water during the Facility Investigation (Task V).

- a. The Ground-Water Protection Standards shall consist of:
  - i) For any constituents listed in Table 1 of 40 CFR 264.94, the respective value given in that table (Maximum Concentration of Constituents for Ground-Water Protection) if the background level of the constituent is below the one given in Table 1; or
  - ii) The background level of that constituent in the groundwater; or
  - iii) An EPA-approved Alternate Concentration Limit (ACL).
- b. Information to support the Agencies' subsequent selection of Alternate Concentration Limits (ACLs) shall be developed by Defendant in accordance with EPA's guidance. For any proposed ACLs, Defendant shall include a justification based upon the criteria set forth in 40 CFR 264.94(b).
- c. Following the receipt of any proposed ACLs, the Agencies shall notify Defendant in writing of approval, disapproval, or modifications. The Agencies shall specify in writing the reason(s) for any disapproval or modification.
- d. Within sixty (60) calendar days of receipt of the notification of approval or disapproval of any proposed ACL, Defendant shall amend and submit revisions to EPA.

2. Other Relevant Protection Standards

Defendant shall identify all relevant and applicable standards for the protection of human health and the environment (e.g., National Ambient Air Quality Standards, Federally-approved State Water Quality Standards, etc.).

TASK VII: LABORATORY AND BENCH-SCALE STUDIES

Defendant shall conduct laboratory and/or bench-scale studies to determine the applicability of a corrective-measure technology or technologies to facility conditions. Defendant shall analyze the technologies, based on literature review, vendor contracts, and past experience, to determine the testing requirements.

Defendant shall develop a testing plan identifying the types(s) and goal(s) of the study(ies), the level of effort needed, and the procedures to be used for data management and interpretation.

Upon completion of the testing, Defendant shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.

Defendant shall prepare a report summarizing the testing program and its results, both positive and negative.

TASK VIII: REPORTS AND OTHER SUBMISSIONS

A. Preliminary Reports and Workplan Submissions

Defendant shall submit to the Agencies, as required herein and in the Consent Decree, reports and workplans including the Description of Current Conditions and the Pre-Investigation Evaluation.

B. Progress Reports

Defendants shall at minimum provide EPA with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the RFI completed;
2. Summaries of all findings;
3. Summaries of all changes made in the RFI during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel involved with the RFI during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

C. Draft and Final Reports

Within forty-five (45) days of completion of the RFI, the Defendant shall prepare, for the Agencies' review, a Draft RCRA Facility Investigation Report which presents the results of studies conducted under Tasks V and VI. The RCRA Facility Investigation Report shall be subject to the review and approval process established in the Consent Decree. The results of

studies conducted under Task VII shall be submitted as a separate report when the first revised RCRA Facility Investigation Report is submitted. All reports become final upon approval by the Agencies.

D. Ground-Water Assessment Program Workplan and Report

Defendant shall submit to the Agencies, a plan for a Ground-Water Quality Assessment Program, as required in this Scope of Work.

## FACILITY SUBMISSION SUMMARY

An abbreviated summary of the information reporting requirements contained in the RCRA Facility Investigation Scope of Work is presented below:

<u>FACILITY SUBMISSION</u>	<u>DUE DATE *</u>
Description of Current Situation Task I	thirty (30) days
Pre-Investigation Evaluation of Corrective Measure Technologies Task II	** sixty (60) days
Draft RFI Workplan Task III	** sixty (60) days
Groundwater Assessment Workplan Task IV	** sixty (60) days
Implementation of approved RFI Workplan Task V	Within fifteen (15) days of notice of approval of the RFI Workplan
Draft RFI Report Tasks VI and VIII	Within forty-five (45) days of the completion of the RFI
Revised RFI Report Tasks VI and VIII	Within thirty (30) days of agency comment on Draft RFI Report
Laboratory and Bench-Scale Studies Task VII	Concurrent with first revised RFI Report
Progress Reports on Tasks I through VI	Monthly

\* All due dates are calculated from the effective date of the Consent Decree unless otherwise specified

\*\* From approval or modification of the Report due under Task I

ATTACHMENT C

SCOPE OF WORK FOR A CORRECTIVE MEASURES STUDY

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

ATTACHMENT C

SCOPE OF WORK FOR A CORRECTIVE MEASURE STUDY

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

PURPOSE

The purpose of this Corrective Measures Study (hereafter "CMS") is to develop and evaluate the corrective action alternatives and to recommend the corrective measure or measures to be taken at Cedar Chemical Corporation in Vicksburg, Mississippi. The Defendant will furnish the personnel, material, and services necessary to prepare the corrective measure study, except as otherwise specified herein. The Defendant shall submit to EPA and MSDEQ (hereafter "the Agencies"), sixty (60) calendar days after final approval of the RFI Report, a Draft CMS Report. This report shall contain all information requested in the tasks outlined below. The reports and plans to be submitted will be subject to review, modification and approval pursuant to the procedures established in the Consent Decree. Upon approval of the CMS Report, the Agencies will make the Report available to the public for review and comment and, following public review and comment, will inform the Defendants of the Corrective Measures selected for the Cedar Chemical Corporation Facility.

SCOPE

The Corrective Measures Study consists of four tasks:

Task I: Identification and Development of the Corrective Measures Alternatives

- A. Description of Current Situation
- B. Establishment of Corrective Action Objectives
- C. Screening of Corrective Measures Technologies
- D. Identification of the Corrective Measures Alternatives

Task II: Evaluation of the Corrective Measures Alternative or Alternatives

- A. Technical/Environmental/Human Health/Institutional
- B. Cost Estimate

Task III: Justification and Recommendation of the Corrective Measure or Measures

- A. Technical
- B. Environmental
- C. Human Health

Task IV: Reports and Other Submissions

- A. Progress Reports
- B. Draft Reports
- C. Final Reports
- D. Public Notice and Final Selection of Corrective Measure

TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE ACTION ALTERNATIVE OR ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the potential corrective measures technologies, the Defendant shall identify, screen, and develop the alternatives for removal, containment, treatment, and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

Defendant shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. Defendant shall provide an update to information presented in Task I of the RFI to the Agencies regarding previous response activities and any interim measures which have been or are being implemented at the facility. The Defendant's shall include a statement of the RFI findings identifying the actual or potential exposure pathways that shall be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

Defendant shall propose for the Agencies review and approval facility specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RCRA Facility Investigation, EPA guidance, and the requirements of any applicable Federal statutes. At a minimum, all corrective actions concerning ground-water releases from regulated units must be consistent with, and as stringent as, those required under 40 CFR 264.100.

C. Screening of Corrective Measures Technologies

Defendant shall review the results of the RCRA Facility Investigation, and reassess the technologies specified in Task II of the RFI, to identify additional technologies which are applicable at the facility. Defendant shall screen the preliminary corrective measures

technologies identified in Task II of the RCRA Facility Investigation and any supplemental technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measures objectives within a reasonable time. The screening process should focus on eliminating those technologies which have severe limitations for a given set of waste and site specific conditions. The screening step may also eliminate technologies based on inherent technologic limitations. Site, waste and technologic characteristics which should be used to screen inapplicable technologies are described in more detail below.

Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration.

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measures Alternative or Alternatives

Defendant shall develop the corrective measures alternatives based on the corrective action objectives established under B above and the screening of potential corrective measures technologies undertaken under C above. Defendant shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the



overall corrective action alternatives, and each alternative may consist of an individual technology or combination of technologies.

The alternatives developed should represent a workable number of options that each appear to address adequately all site problems and corrective action objectives. The Defendant shall document the reasons for excluding technologies previously identified under Task II of the RFI.

**TASK II: EVALUATION OF THE CORRECTIVE MEASURES ALTERNATIVE OR ALTERNATIVES**

Defendant shall describe and evaluate each corrective measures alternative that passes through the Initial Screening in Task I. The evaluation shall be based on technical, environmental, human health, and institutional concerns. Defendant shall also develop cost estimates for each corrective measures alternative.

**A. Technical/Environmental/Human Health/Institutional**

**Technical**

1. The Defendant shall evaluate each corrective measures alternative based on technical concerns, including performance, reliability, implementability and safety.

- a. Defendant shall evaluate performance based on the effectiveness and useful life of the corrective measure:

- i) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies.
- ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measures technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each alternative shall be evaluated by comparing its projected service to the life of the project.

b. Defendant shall provide information on the reliability of each alternative including its operation and maintenance requirements and its demonstrated reliability:

- i) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance activities. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance activities. The availability of labor and materials to meet these requirements shall also be considered.
- ii) Demonstrated and expected reliability is a way of evaluating the risk and effect of failure. Defendant shall evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

c. Defendant shall describe the implementability of each alternative including the relative ease of installation (constructability) and the time required to achieve a given level of response:

- i) Constructability is determined by conditions both internal and external to the facility conditions, including such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). Defendant shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities.
- ii) Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

- d. Defendant shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

## 2. Environmental

Defendant shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of the short-term and long-term beneficial and adverse effects of the response alternative, any adverse effects on environmentally sensitive areas, and an analysis of measures to mitigate adverse effects.

## 3. Human Health

Defendant shall assess each alternative in terms of the extent to which it mitigates short and long term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measures. The assessment will describe the concentrations and characteristics of the contaminants on-site, potential exposure routes, and potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. The relative reduction of impact will be determined by comparing residual levels of contaminants for each alternative with existing criteria, standards, or guidelines for levels of contaminants acceptable to EPA.

## 4. Institutional

Defendant shall assess relevant institutional requirements for each alternative. Specifically the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

## B. Cost Estimate

Defendant shall develop an estimate of the cost of each corrective measures alternative and for each phase or segment of the alternative. The cost estimate shall include both fixed capital and working capital (operation and maintenance) costs. The fixed capital cost estimate will be used to compare corrective measures alternatives.

1. Fixed capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

- a. Direct capital costs include:

- i) Construction costs that is, costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure;
    - ii) Equipment costs that is, costs of treatment, containment, disposal, and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
    - iii) Land and site-development costs that is, expenses associated with purchase of land and development of existing property; and
    - iv) Building and services costs that is, costs of process and nonprocess buildings, utility connections, purchased services, and disposal costs.

- b. Indirect capital costs include:

- i) Engineering expenses that is, costs of administration, design, construction supervision, drafting, and testing of corrective measures alternatives;
    - ii) Legal fees and license or permit costs that is, administrative and technical costs necessary to obtain licenses and permits for installation and operation;
    - iii) Start-up and shake-down costs that is costs incurred during corrective measures start-up; and
    - iv) Contingency allowances that is, funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. Defendant shall consider the following operation and maintenance cost components:

- a. Operating labor costs that is, wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;
  - b. Maintenance materials and labor costs that is, costs for labor, parts, and other resources required for routine

- maintenance of facilities and equipment;
- c. Auxiliary materials and energy that is costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
  - d. Purchased services that is, sampling costs, laboratory fees, and professional fees for which the need can be predicted;
  - e. Disposal and treatment costs that is, costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
  - f. Administrative costs that is costs associated with administration of corrective measures operation and maintenance not included under other categories;
  - g. Insurance, taxes, and licensing costs that is, costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;
  - h. Maintenance reserve and contingency funds that is, annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
  - i. Other costs that is, items that do not fit any of the above categories.

### TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURES

Defendant shall justify and recommend a corrective measures alternative or alternatives using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted. EPA will select the corrective measures alternative or alternatives to be implemented based on the results of Tasks I and II. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

#### A. Technical

1. Performance - corrective measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measures which do not require frequent or complex operation and maintenance activities and that have

proven effective under waste and facility conditions similar to those anticipated will be given preference;

3. Implementability - corrective measures which can be constructed and operated to reduce levels of contamination and to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Environmental

The corrective measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

C. Human Health

The corrective measures must comply with existing EPA and State criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time will be preferred.

TASK IV: REPORTS AND OTHER SUBMISSIONS

Defendant shall prepare a Corrective Measures Study Report presenting the results of Tasks I through III and recommending a corrective measures alternative. Copies of the draft report shall be provided by the Defendant to the Agencies for review and approval in accordance with the schedule approved in the CMS Workplan.

A. Progress Reports

Defendant shall submit to the Agencies signed, monthly progress reports which provide, at a minimum:

1. A description and estimate of the percentage of the CMS completed;
2. Summaries of all findings made during the reporting period;
3. Summaries of all changes made in the CMS during the reporting period;
4. Summaries of all contacts with representatives of the local community, and public interest groups during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel involved with the CMS during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

**B. Draft Reports**

The Corrective Measures Study Report shall at a minimum include:

1. A description of the facility;  
Site topographic map and preliminary layouts.
2. A summary for each corrective measures alternative, of the descriptions, assessments and evaluations made in Tasks I and II, above;
3. A summary of the recommended corrective measures;
  - a. Description of the corrective measures and rationale for selection;
  - b. Performance expectations;
  - c. Preliminary design criteria and rationale;
  - d. General operation and maintenance requirements; and
  - e. Long-term monitoring requirements.
4. A summary of the RCRA Facility Investigation findings and impact on the recommended corrective measures:
  - a. Field studies (ground water, surface water, soil, air); and
  - b. Laboratory studies (bench scale, pilot scale).
5. Design and implementation precautions for the recommended Corrective Measures:
  - a. Special technical problems;
  - b. Additional engineering data required;

- c. Permits and regulatory requirements;
  - d. Access, easements, right-of-ways;
  - e. Health and safety requirements; and
  - f. Community relations activities.
6. Cost Estimates and Schedules for the recommended Corrective Measures;
- a. Fixed Capital cost estimate;
    - i) Study Cost Estimates for the comparisons of corrective measure technologies ( $\pm 30\%$  of projected final cost)
    - ii) Project Control Capital Cost Estimate for the chosen corrective measure technology ( $\pm 10\%$  of projected final cost)
  - b. Working Capital cost estimate (operation and maintenance); and
  - c. Preliminary project schedule (design, construction, opera- ).

Copies of the draft shall be provided by the Defendants to the Agencies.

C. Final Reports

Defendant shall revise the Corrective Measures Study Report, incorporating comments received from the Agencies on the Draft Corrective Measures Study Report.

D. Public Review and Final Selection of Corrective Measures

Upon approval of the Corrective Measures Study Report, the Agencies will make available to the public for review and comment, as specified in the Consent Decree, a summary of the proposed corrective measures, and the justification for their selection. The Corrective Measures Study Report and RCRA Facility Investigation Report shall be included in the justification.



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FACILITY SUBMISSION SUMMARY

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<u>Facility Submission</u>	<u>Due Date</u>
CMS Workplan	Within sixty (60) calendar days of approval of RFI Report
Implementation of CMS Workplan	Begin within fifteen (15) calendar days of approval of CMS Workplan
Draft CMS Report	In accordance with the schedule contained in the approved workplan
Final CMS Report	Within thirty (30) calendar days of EPA and MSDEQ comment on the Draft CMS
Progress Reports	Monthly

ATTACHMENT D

SCOPE OF WORK FOR THE CORRECTIVE MEASURES IMPLEMENTATION

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

## SCOPE OF WORK FOR THE CORRECTIVE MEASURES IMPLEMENTATION

AT

CEDAR CHEMICAL CORPORATION, VICKSBURG, MISSISSIPPI

PURPOSE

The purpose of this Corrective Measures Implementation (hereafter "CMI") program is to design, construct, operate, maintain, and monitor the performance of the corrective measure or measures selected to protect human health and the environment at the Cedar Chemical Facility. The Defendant shall furnish all personnel, materials, and services necessary for the implementation of the corrective measure or measures at the Facility. Reports and plans will be submitted to EPA and MSDEQ (hereafter "the Agencies"). These reports and plans will be subject to review, modification and approval pursuant to the procedures established in the Consent Decree.

SCOPE

The Corrective Measures Implementation program consists of four tasks:

Task I:           Corrective Measures Implementation Program Plan

- A.   Program Management Plan
- B.   Community Relations Plan

Task II:          Corrective Measures Design

- A.   Design Plans and Specifications
- B.   Operation and Maintenance Plan
- C.   Cost Estimate
- D.   Project Schedule
- E.   Construction Quality Assurance Objectives
- F.   Health and Safety Plan
- G.   Design Phases

Task III:         Corrective Measures Construction

- A.   Responsibility and Authority
- B.   Construction Quality Assurance Personnel Qualifications
- C.   Inspection Activities
- D.   Sampling Requirements
- E.   Documentation

Task IV:          Reports and Other Submissions

- A.   Progress Reports
- B.   Draft Reports and Submissions
- C.   Final Reports and Submissions

## TASK I: CORRECTIVE MEASURES IMPLEMENTATION PROGRAM PLAN

The Defendant shall prepare a Corrective Measures Implementation Program Plan. This program will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as the work is performed to focus efforts on a particular problem. The Program Plan includes the following:

### A. Program Management Plan

The Defendant shall prepare a Program Management Plan which will document the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s). The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The Program Management Plan shall also include a description of qualifications of key personnel directing the Corrective Measures Implementation Program, including contractor personnel.

### B. Community Relations Plan

The Defendants shall revise the Facility Community Relations Plan, if one has previously been developed, during design and construction activities to include any changes in the level of information needed due to the concerns of the community.

1. Specific activities which must be conducted during the design stage are as follows:
  - a. Revise the facility Community Relations Plan to reflect knowledge of citizen concerns and involvement at this stage of the process; and
  - b. Prepare and distribute a public notice and an updated fact sheet at the completion of engineering design.
2. Depending on citizen interest at this point in the corrective action process, specific activities to be conducted during the construction stage could range from conducting group meetings to preparing fact sheets on the technical status.

## TASK II: CORRECTIVE MEASURES DESIGN

The Defendant shall prepare final construction plans and specifications to implement the corrective measures at the facility as defined in the Corrective Measures Study. These plans and specifications shall be incorporated into a Corrective Measures Design Plan, which shall also include the following:

### A. Design Plans and Specifications

The Defendant shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including:
  - a. Compliance with all applicable or relevant and appropriate environmental and public health standards; and
  - b. Minimization of environmental and public impacts.
2. Discussion of the technical factors of importance including:
  - a. Use of currently accepted environmental control measures and technology;
  - b. The constructability of the design; and
  - c. Use of currently acceptable construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions;
4. Discussion of the possible sources of error and references to possible operation and maintenance problems;
5. Detailed drawings of the proposed design including;
  - a. Qualitative flow sheets; and
  - b. Quantitative flow sheets.
6. Tables listing equipment and specifications;
7. Tables giving material and energy balances;
8. Appendices including:
  - a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);
  - b. Derivation of equations essential to understanding the report; and
  - c. Results of laboratory or field tests.
- B. Operation and Maintenance Plan

The Defendant shall prepare an Operation and Maintenance Plan to cover both implementation and long-term maintenance of the corrective measures. The plan shall be composed of the following elements:

1. Description of normal operation and maintenance (O&M):
  - a. Description of tasks for operation;

- b. Description of tasks for maintenance
  - c. Description of prescribed treatment or operation conditions; and
  - d. Schedule showing frequency of each O&M task.
2. Description of potential operating problems:
- a. Description and analysis of potential operating problems;
  - b. Sources of information regarding problems; and
  - c. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing:
- a. Description of monitoring tasks;
  - b. Description of required laboratory tests and their interpretation;
  - c. Required QA/QC; and
  - d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.
4. Description of alternate O&M:
- a. Should systems fail, alternate procedures to prevent undue hazard; and
  - b. Analysis of vulnerability and additional resource requirements should a failure occur.
5. Safety plan:
- a. Description of precautions, necessary equipment, etc., for site personnel; and
  - b. Safety tasks required in the event of systems failure.
6. Description of equipment:
- a. Equipment identification;
  - b. Installation of monitoring components;
  - c. Maintenance of site equipment; and
  - d. Replacement schedule for equipment and installed components.

7. Records and reporting mechanisms required:

- a. Daily operating logs;
- b. Laboratory records;
- c. Records for operating costs;
- d. Mechanism for reporting emergencies;
- e. Personnel and maintenance records; and
- f. Monthly/annual reports to state agency.

A Draft Operation and Maintenance Plan shall be submitted simultaneously with the Prefinal Design Documents submission. The Final Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Capital and Operating and Maintenance Construction Cost Estimate

The Defendant shall develop cost estimates for the purpose of assuring that the facility has the financial resources necessary to construct and implement the corrective measure. The cost estimate developed in the Corrective Measures Study shall be refined to reflect the more detailed, accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs. A draft Cost Estimate shall be submitted simultaneously with the Prefinal Design Documents submission, and the Final Cost Estimate shall be submitted with the Final Design Documents.

D. Project Schedule

The Defendant shall develop a Project Schedule for constructing and implementing the corrective measure or measures which identifies timing for initiation and completion of all critical path tasks. The Defendant shall specifically identify dates for completion of the project and major interim milestones. A draft Project Schedule shall be submitted simultaneously with the Prefinal Design Documents submission, and the Final Project Schedule shall be submitted with the Final Design Documents.

E. Construction Quality Assurance Objectives

The Defendant shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to, the following: responsibility and authority, personnel qualifications, inspection activities, sampling requirements, and documentation. The draft Construction Quality Assurance Plan shall be submitted simultaneously with the Prefinal Design Documents submission, and the Final Construction Quality Assurance Plan shall be submitted with the Final Design Documents.

**F. Health and Safety Plan**

The Defendant shall modify the Health Safety Plan developed for the RCRA Facility Investigation to address the activities to be performed at the facility to implement the corrective measure(s). The draft revised Health and Safety Plan shall be submitted simultaneously with the Prefinal Design Document submission and the final revised Health and Safety Plan shall be submitted with the Final Design Documents.

**G. Design Phases**

The design of the corrective measure(s) should include the phases outlined below:

**1. Preliminary design**

The Defendant shall submit the preliminary design when the design effort is approximately 30% complete. At this stage, the Defendant shall have field-verified the existing conditions of the facility. The preliminary design shall reflect a level of effort such that the technical requirements of the project have been addressed and outlined so that they may be reviewed to determine if the final design will provide an operable and usable corrective measure. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program. The preliminary construction drawings by the Defendants shall reflect organization and clarity. The scope of the technical specifications shall be outlined in a manner reflecting the final specifications. The Defendant shall include, with the preliminary design submission, calculations reflecting the same percentage of completion as the design they support.

**2. Intermediate design**

Complex project design may necessitate review of the design documents between the preliminary and the prefinal/final design. At the discretion of the Agencies, a design review may be required at 60% completion of the project. The intermediate design submittal should include the same elements as the prefinal design.

**3. Correlation of plans with specifications**

General correlation between drawings and technical specifications is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, the Defendant shall:

- a. Coordinate and cross-check the specifications and drawings, and
- b. Proof the edited specifications and cross-check all drawings and specifications.



These activities shall be completed prior to the 95% prefinal submittal to EPA and MSDEQ.

4. Equipment start-up and operator training

The Defendant shall prepare and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up, and operation of the treatment systems and training covering appropriate operational procedures once the start-up has been successfully accomplished.

5. Additional studies

Corrective Measures Implementation may require additional studies to supplement the available technical data, and this need for additional studies may be identified by the Agencies or the settling defendant. For any such studies required, the Defendant shall furnish all services, including field work, materials, supplies, plants, labor, equipment, investigations, studies, and superintendents. Sufficient sampling, testing, and analysis shall be performed to optimize the required treatment and/or disposal operations and systems. When additional studies are required, there shall be an initial meeting of all principal personnel involved in the development of the program. The purpose will be to discuss objectives, resources, communication channels, roles of personnel involved, and orientation of the site, etc. The interim report shall present the results of the testing with the recommended treatment or disposal system (including options). A review conference shall be scheduled after the interim report has been reviewed by all interested parties. The final report of the testing shall include all data taken during the testing and a summary of the study results.

6. Prefinal and final design

The Defendant shall submit the prefinal/final design documents in two phases. The first submission shall be at 95% completion of design (i.e., prefinal). After approval of the prefinal submission, the Defendants shall execute the required revisions and submit the final documents 100% complete with reproducible drawings and specifications.

The prefinal design submittal shall consist of the Design Plans and Specifications, Operation and Maintenance Plan, Capital and Operating and Maintenance Construction Cost Estimate, Project Schedule, Quality Assurance Plan, and the revised Health and Safety Plan.

The final design submittal shall consist of the Final Design Plans and Specifications (100% complete), the Defendant's Final Construction Cost Estimate, the Final Operation and Maintenance Plan, Final Quality Assurance Plan, Final Project Schedule, and Final Health and Safety Plan. The quality of the design documents should be such that the

Defendant would be able to include them in a bid package and invite contractors to submit bids for the construction project.

### TASK III: CORRECTIVE MEASURES CONSTRUCTION

Following approval of the final design documents, the Defendant shall develop, submit for approval and implement a Construction Quality Assurance Program (CQAP), in accordance with the CQA. This program shall ensure, with a reasonable degree of certainty, that a completed corrective measure(s) meets or exceeds all design criteria, plans, and specifications. The CQA plan is a facility-specific document which must be submitted to the Agencies for review and approval prior to the start of construction. At a minimum, the CQA plan should include the elements which are summarized below. Upon approval of the CQA plan, the Defendant shall construct and implement the corrective measures in accordance with the approved design, schedule, and CQA plan. The Defendant shall also implement the elements of the approved Operation and Maintenance Plan.

#### A. Responsibility and Authority

The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.), and key personnel involved in the construction of the corrective measures shall be described fully in the CQA plan. The Defendant must identify a CQA officer and the necessary supporting inspection staff.

#### B. Construction Quality Assurance Personnel Qualifications

The qualifications of the CQA officer and supporting inspection personnel shall be presented in the CQA plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

#### C. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the corrective measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records and waste disposal records (e.g., RCRA transportation manifests). The inspections should also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Defendants shall conduct the following activities:

##### 1. Preconstruction inspection and meeting

The Defendant shall conduct a preconstruction inspection and meeting to accomplish the following purposes:

- a. to review methods for documenting and reporting inspection data;
- b. to review methods for distributing and storing documents and reports;
- c. to review work area security and safety protocol;
- d. to discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
- e. to conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person, and minutes should be transmitted to all parties.

## 2. Prefinal inspection

Upon preliminary project completion, the Defendant shall notify EPA and MSDEQ so that they may conduct a prefinal inspection. The prefinal inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the approved corrective measures. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by the Defendants. The Defendant will certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report shall outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

## 3. Final inspection

Upon completion of any outstanding construction items, the Defendant shall notify EPA and MSDEQ so that they may conduct a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

## D. Sampling Requirements

The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems as addressed in the project specifications should be presented in the CQA plan.

E. Documentation

Reporting requirements for CQA activities shall be described in detail in the CQA plan. This should include such items as daily summary reports, inspection data sheets, problem identification and remedy reports, design acceptance reports, and final documentation. Provisions for the final storage of all records also should be presented in the CQA plan.

TASK IV: REPORTS AND OTHER SUBMISSIONS

The Defendant shall prepare plans, specifications, and reports as set forth in Task I through Task IV, to document the design, construction, operation, maintenance, and monitoring of the corrective measures. These reports shall be provided by the Defendant to EPA and MSDEQ as specified in the Consent Decree.

A. Progress Reports

The Defendants shall provide EPA and MSDEQ with monthly progress reports as specified in the Consent Decree. The reports shall contain at a minimum:

1. A description and estimate of the percentage of the CMI completed;
2. Summaries of all findings;
3. Summaries of all changes made in the CMI during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups or state government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, and laboratory/monitoring data.

B. Draft Reports and Submissions

1. The Defendant shall submit a draft Corrective Measures Implementation Program Plan as outlined in Task I within ninety (90) calendar days of receipt of notification of the Agencies final selection of the corrective measures;

2. The Defendant shall submit draft Design Plans and Specifications, Design Reports, Operation and Maintenance Plan, Capital and Operating and Maintenance Construction Cost Estimates, Construction Quality Assurance Objectives, Health and Safety Plan, Schedules for Design Phases, and Study Reports as outlined in Task II;
3. The Defendant shall submit a draft Construction Quality Assurance Program Plan and Documentation as outlined in Task III, and
4. At the "completion" of the construction of the project, the Defendants shall submit a Corrective Measures Implementation Report to EPA and MSDEQ. The Report shall document that the project is consistent with the design specifications and that the corrective measures are performing adequately. The Report shall include, but not be limited to, the following elements:
  - a. Synopsis of the corrective measures and certification of the design and construction;
  - b. Explanation of any modifications to the plans and why these were necessary for the project;
  - c. Listing of the criteria, established before the corrective measures were initiated, for judging the functioning of the corrective measures and also explaining any modification to these criteria;
  - d. Results of facility monitoring, indicating that the corrective measures will meet or exceed the performance criteria; and
  - e. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report should include all of the daily inspection summary reports, inspection data sheets, problem identification and remedy reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings.

C. Final Reports and Submissions

The Defendant shall finalize the Corrective Measures Implementation Program Plan, the Corrective Measures Design Plan including, Design Plans and Specifications, the Operation and Maintenance Plan, the Capital and Operating and Maintenance Construction Cost Estimate, the Project Schedule, the Construction Quality Assurance Objectives, the Health and Safety Plan, the Design Phases, any additional studies which were conducted, and the Corrective Measures Implementation Report. This report shall include the final design and incorporate changes or explanations necessary to address comments received on draft submissions. The Defendant shall submit the Final Report to EPA and MSDEQ in accordance with the approved schedule.

UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI

UNITED STATES OF AMERICA,  
  
Plaintiff,  
v.  
CEDAR CHEMICAL CORPORATION,  
  
Defendant.

CIVIL ACTION  
NO. \_\_\_\_\_

COMPLAINT

The United States of America, by and through the undersigned attorneys, by the authority of the Attorney General, and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), alleges as follows:

PRELIMINARY STATEMENT

1. This is a civil action for injunctive relief pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h), and the federal regulations and state hazardous waste management laws and regulations promulgated thereunder, arising from releases of hazardous waste and hazardous waste constituents at the Cedar Chemical Corporation facility in Vicksburg, Mississippi.

2. This Court has jurisdiction over the subject matter of this action pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), and 28 U.S.C. § 1345. The State of Mississippi has been notified of the commencement of this civil action as required by Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

3. Venue is appropriate in this judicial district pursuant to Section 3008(h)(1) of RCRA, 42 U.S.C. § 6928(h)(1), and 28 U.S.C. § 1391(b), because this action arose from the release of hazardous waste and hazardous waste constituents at a facility located within this judicial district.

#### DEFENDANT

4. Cedar Chemical Corporation ("CCC"), is a corporation organized under the laws of the State of Delaware and doing business in the State of Mississippi. CCC owns and operates a chemical manufacturing facility on Rifle Range Road in Vicksburg, Mississippi, which at all times relevant to this complaint was a regulated facility under RCRA (hereafter the "facility"). CCC acquired the facility from Vertac Chemical Corporation, Vicksburg Chemical Company Division ("VCC") in 1986. References to CCC hereafter are intended to apply to VCC where the context so requires with respect to periods during or prior to 1986.

#### STATUTORY AND REGULATORY BACKGROUND

5. RCRA establishes a comprehensive regulatory program applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste.

6. The Administrator of EPA has listed hazardous wastes which are subject to regulation under RCRA at 40 C.F.R. § 261.32, pursuant to authority granted under Section 3001 of RCRA, 42 U.S.C. § 6921.

7. RCRA and its implementing regulations provide for government regulation of facilities involved in the treatment,

storage or disposal of hazardous waste primarily through a permitting process. Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), generally prohibits the operation of hazardous waste management facilities except in accordance with a permit. Section 3005(e)(1) through (3) of RCRA, 42 U.S.C. §§ 6925(e)(1)-(3), established a limited exception to this permit requirement by allowing hazardous waste management facilities that were in existence on or before the effective date of the statute to continue operation on an "interim status" basis until final action was taken on a permit application. To obtain interim status, the owner or operator of a hazardous waste management facility was required to notify EPA of its hazardous waste management activity pursuant to Section 3010(a) of RCRA, and to submit the "Part A" portion of the permit application pursuant to 40 C.F.R. § 270.1(b).

8. Section 3006 of RCRA, 42 U.S.C. § 6926, provides that States may be authorized to administer and enforce hazardous waste management programs under RCRA. The State of Mississippi was authorized to administer its RCRA waste management program on or about June 27, 1984. The State has not, however, been authorized to administer and enforce some portions of the RCRA hazardous waste management program added by the Hazardous and Solid Waste Amendments of 1984, including Section 3008(h).

9. The United States has concurrent authority under Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2), to enforce those portions of the RCRA hazardous waste management program that the



State of Mississippi has been authorized to enforce. The United States has exclusive authority to enforce those portions of the RCRA program added by the Hazardous and Solid Waste Amendments of 1984 for which the state has not been authorized, including Section 3008(h).

10. RCRA provides for an award of injunctive relief requiring owners and operators of hazardous waste management facilities to conduct corrective action when releases of hazardous waste occur at hazardous waste management facilities that operated under interim status. Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), states that the Administrator of EPA may file suit in district court to obtain appropriate corrective action "whenever on the basis of any information the Administrator determines that there is or has been a release of hazardous waste into the environment from a facility" that operated under interim status. In addition, RCRA requires that all hazardous waste management units which lost interim status, must be closed in accordance with Section 3005 of RCRA and 40 C.F.R. § 270.1(b).

#### GENERAL ALLEGATIONS

11. CCC's facility in Vicksburg, Mississippi is comprised of two plants located on contiguous property known as the North and South Plants. The North Plant manufactures or has manufactured potassium nitrate and generates or has generated nitrogen tetroxide and chlorine as by products. The South Plant manufactures or has manufactured nitric acid and a wide variety

of pesticides, including monosodium methanearsonate (MSMA), 6-dinitrophenol (DNBP/Dinoseb) and toxaphene.

12. In the course of operating its facility, CCC treats, stores and disposes or has treated, stored and disposed of "hazardous wastes" as that term is defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), and 40 C.F.R. § 261.3. These hazardous wastes include a waste stream generated in the production of MSMA classified as K031. 40 C.F.R. § 261.32. The facility also managed P020, dinoseb, K041, wastewater treatment sludge from the production of toxaphene, and K098, untreated process wastewater from the production of toxaphene.

13. CCC places or has placed K031 in drums or "roll-off" containers that are or were stored on-site in an area known as the "container storage area" pending shipment off-site for disposal. The container storage area, which consists of two adjacent concrete pads each designed to hold approximately one thousand fifty-five gallon drums, is a "facility for the treatment, storage or disposal of hazardous waste" within the meaning of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a).

14. On June 28, 1980, CCC notified EPA that it was treating, storing or disposing of numerous hazardous wastes at its facility, including, K041 P020, P047, P071, U044, U224, and U239 pursuant to Section 3005(e)(1) of RCRA, 42 U.S.C. § 6925(e)(1), as required by Section 3010(a) of RCRA, 42 U.S.C. § 6930(a).

15. On November 18, 1980, CCC submitted a Part A application

to EPA seeking a permit to continue operation of the container storage area pursuant to Section 3005(a) of RCRA, 42 U.S.C. § 6925(a).

16. By virtue of CCC's submission of notification and a Part A application to EPA, CCC was automatically accorded "interim status" authority to continue operation of the container storage area pending final administrative disposition of its permit application. CCC was authorized to operate and did operate the container storage area under interim status operating authority until on or about August 10, 1983.

**FIRST CLAIM FOR RELIEF**  
**(Closure of the Container Storage Area)**

17. Plaintiff realleges paragraphs 1 through 16 above as if fully alleged below.

18. On or about August 10, 1983, CCC amended and resubmitted its Part A application in part by deleting the container storage area from its application. CCC claimed it no longer needed interim status or a final permit for the container storage area because the area was exempt from the permitting requirements under 40 C.F.R. § 262.34.

19. 40 C.F.R. § 262.34 provides that generators may accumulate hazardous waste on-site for 90 days or less without a permit or interim status provided that specified operating requirements are satisfied. These operating requirements provide that the date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container,

and that the generator must comply with the applicable regulations under 40 C.F.R. Part 265, Subpart I, concerning the use and management of containers. See 40 C.F.R. § 262.34(a)(1) and (2). The Subpart I regulations require generally that owner and operators of containers must conduct at least weekly inspections to ensure that all containers are maintained in good condition free from leaks or deterioration and that all containers are kept closed during storage. See 40 C.F.R. §§ 265.171, .173-.174.

20. CCC did not fulfill the 90-day storage exemption requirements of 40 C.F.R. § 262.34 so as to exempt the container storage area from the permitting requirements.

21. CCC violated the 90-day storage exemption requirements both before and after August 10, 1983, by storing hazardous waste in containers in the container storage area for periods in excess of 90 days, and by failing to properly mark the accumulation date on all containers.

22. CCC also violated the 90 day storage exemption requirements both before and after August 10, 1983, by failing to properly inspect all hazardous waste containers in the container storage area, by failing to properly maintain the containers free from leaks and deterioration, and by failing to keep all containers closed during storage.

23. Because CCC failed to satisfy the 90-day storage exemption requirements and because the company lost interim status operating authority on August 10, 1983 by withdrawing its

Part A application for a final permit for the storage container area, CCC was required to cease placing hazardous waste in the container storage area on August 10, 1983.

24. Under 40 C.F.R. §§ 265.112(d)(3)(i) and 265.118(e)(1) owners and operators of hazardous waste management facilities must submit plans for closure and post-closure care of each of their units within fifteen (15) days of the loss of interim status.

25. CCC placed hazardous waste in the container storage area after August 10, 1983, and continues to place hazardous waste in the area, in violation of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a). CCC has failed to submit required plans for immediate closure and post-closure care of the container storage area in violation of 40 C.F.R. §§ 265.112(d)(3)(i) and 265.118(e)(1).

26. Pursuant to section 3008(a) of RCRA, 42 U.S.C. § 6928(a) and 40 C.F.R. § 265.1(b), .112(d)(3)(i) and .118(e)(1), CCC should be ordered to properly submit and implement closure and post-closure plans for the container storage area and enjoined from treating, storing or disposing of any hazardous waste in the container storage area unless and until CCC properly obtains a RCRA permit for the facility.

**SECOND CLAIM FOR RELIEF**  
**(Corrective Action Under Section 3008(h))**

27. Plaintiff realleges paragraphs 1 through 26 above as if fully alleged below.

28. In February 1987, EPA performed a RCRA Environmental Investigation to sample and analyze soil, sediment, ground and surface water at the facility and surrounding area. Numerous hazardous wastes presently or previously generated by the facility were detected, often in very high concentrations, in the soil, sediment, ground and surface water samples taken at the facility.

29. The hazardous wastes discovered in soil, sediment and surface water at the facility include high concentrations of dinoseb and toxaphene. Dinoseb was also present in high concentrations in groundwater at the facility.

30. Other hazardous waste and hazardous waste constituents discovered in significant concentrations variously in the soil, sediment, ground and surface water at the facility include arsenic, atrazine, methyl parathion and [aroclor-1254.] - DEB

31. Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), provides that the EPA may seek a corrective action order from the district court whenever EPA determines on the basis of any information that there is or has been a release of hazardous waste into the environment from any facility authorized to operate under interim status.

32. On October 13, 1989, the Waste Management Division Director of EPA Region IV, pursuant to properly delegated authority, issued a finding that there have been releases of hazardous wastes and hazardous waste constituents into the environment from the CCC facility.

33. Unless appropriate corrective action is taken, releases of hazardous waste and hazardous waste constituents into the environment will continue from the facility.

34. Pursuant to Section 3008(h), 42 U.S.C. § 6928(h), an order should be issued requiring CCC to take corrective action to address and remedy the releases of hazardous waste and hazardous waste constituents into the environment at the facility and to prevent future releases at the facility.

PRAYER FOR RELIEF

WHEREFORE, the plaintiff United States, respectfully prays that this Court enter an Order:

1. Requiring CCC to submit and implement proper closure and post-closure plans for the container storage area;

2. Requiring CCC to comply with all applicable interim status standards and regulations until all closure and post-closure requirements are satisfied;

3. Enjoining CCC from treating, storing or disposing of any hazardous waste in the container storage area unless and until CCC properly obtains a RCRA permit for the facility;

4. Requiring CCC to develop and implement a corrective action plan that will address and remedy the releases of hazardous waste and hazardous waste constituents that have occurred at its facility;

5. Awarding the United States its costs of this action; and

6. Awarding the United States such other relief as this Court may deem just and proper.

Respectfully submitted,

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RICHARD B. STEWART  
Assistant Attorney General  
Environment and Natural Resources  
Division

United States Attorney  
District of Mississippi

By: 

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Assistant United States Attorney

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KAREN S. DWORKIN  
Attorney  
U.S. Department of Justice  
Environment and Natural Resources  
Division  
Environmental Enforcement Section  
Washington, D.C. 20530

OF COUNSEL:

ZYLPHA PRYOR-BELL  
Associate Regional Counsel  
U.S. Environmental Protection Agency  
Region IV  
345 Courtland St., N.E.  
Atlanta, GA 30365

GARY A. JONES  
Office of Enforcement and Compliance Monitoring  
Hazardous Waste Enforcement Division (LE-134S)  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

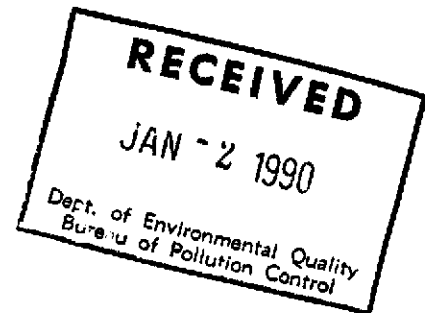




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365



DEC 21 1989

4WD-RCRA

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Steven T. Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39181

RE: Cedar Chemical Corporation  
Vicksburg Facility  
EPA ID NO: MSD 990 714 081

Dear Mr. Boswell:

Enclosed please find the United States Environmental Protection Agency's (EPA's) Determination of Release for the referenced facility. This determination is made pursuant to Section 3008(h) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6928(h).

If you have any questions regarding the determinations, please contact Zylpha K. Pryor, Assistant Regional Counsel, at (404) 347-2641.

Sincerely yours,

Patrick M. Tobin, Director  
Waste Management Division

Enclosure

cc:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IV  
345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

IN THE MATTER OF:	)	Resource Conservation and
	)	Recovery Act
Cedar Chemical Corporation	)	Section 3008(h)
(fka: Vertac Chemical Corp)	)	42 U.S.C. Section 6928(h)
Vicksburg, Mississippi	)	
	)	
EPA ID No: MSD 990 714 081	)	

DETERMINATION OF RELEASE

Pursuant to the authority of Section 3008(h) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6928(h), as duly delegated, the Director of the Waste Management Division, Region IV, United States Environmental Protection Agency (EPA), makes the following Findings of Fact, Conclusions of Law, and Determinations.

SCOPE

This Determination is not intended to document all releases which have occurred at the facility. Releases not documented herein may require corrective action under any authority invoked pursuant to this determination, or under any other authority which the Administrator or his delegate deems necessary.

I

FINDINGS OF FACT

The Director of the Waste Management Division, Region IV, EPA, finds that:

1. Cedar Chemical Corporation (CCC) is a corporation doing business in the State of Mississippi.
2. CCC owns and has operated a hazardous waste management facility located on Rifle Range Road, Warren County, Vicksburg, Mississippi.

CCC has generated, treated, stored and disposed of hazardous waste and hazardous waste constituents at the Vicksburg facility. Those wastes include specifically, wastes associated with the manufacture of toxaphene (K098 and K041), dinoseb (P020) and monosodium methane arsenate (K031).

- K098 is untreated process wastewater from the production of toxaphene.
  - K041 is wastewater treatment sludge from the production of toxaphene.
  - P020 is discarded commercial chemical product, dinoseb.
  - K031 is by-product salts from the production of MSMA.
3. In addition to the manufacture of those materials generating hazardous wastes, CCC manufactured other organic chemicals which may be associated with hazardous constituents. These include: methyl parathion, atrazene, dimethyl urea, isopropyl amine, dinitro-ortho-cresol, and cyanazene.
  4. Pursuant to Section 3010 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6930, CCC (as Vertac) submitted its notification of hazardous waste activity on June 23, 1980. On November 18, 1980, CCC submitted Part A of its hazardous waste permit application.
  5. Having timely submitted the required notification and Part A permit application, CCC achieved interim status for its Vicksburg Facility under Section 3005(e) of RCRA, 42 U.S.C. 6925(e).
  6. On July 27, 1989, EPA inspected the landfill at CCC. The inspectors noted a yellow discoloration on the surface of the landfill, and within the erosion channels that ran down the east, west, and northwest sides of the landfill. It also appeared that the leachate may have been coming from the northwest side of the landfill and going into the drainage ditch. A pesticide odor was present.
  7. The hazardous waste container storage area was also inspected by EPA on July 27, 1981. The inspectors reported that approximately 700 drums were present in this area, sitting on and off a concrete pad. A number of drums containing carbon were rusted through; some were oozing dark liquid. Many of the drums were in an advanced state of deterioration.
  8. On October 28, 1981, EPA inspected CCC and sampled drainage from the landfill. The inspectors noted that surface runoff from the landfill drained in three directions: (1) east into the surface impoundment, (2) south into Hatcher Bayou, and (3) west into a small valley.

9. The sediment sample collected from the east corner of the landfill contained several organic compounds: cyanazine (21 mg/kg), atrazine (84 mg/kg), toxaphene (13 mg/kg), and Arochlor - 1254 (PCB, 7 mg/kg). These organic compounds were not detected in the upstream sediment sample from Stouts Bayou. Cyanide (0.68 ug/kg) was also measured in this sediment sample and not in the upstream sediment sample from Stouts Bayou. Other chemicals detected included barium, chromium, lead, and mercury (see Table 1).
10. The sediment sample collected from the small valley west of the landfill contained atrazine (18 mg/kg) and toxaphene (65 mg/kg). Cyanide (0.58 mg/kg) was also detected in this sediment sample. Other chemicals detected included barium, chloroform, chromium, and lead (see Table 1).
11. In February 1983, a portion of the south levee containing CCC's surface impoundment failed, resulting in the release of approximately 700,000 gallons of liquid to the adjacent bayous.
12. On October 31, 1983, CCC sampled groundwater monitoring wells. Analyses of these samples indicated the presence of dinoseb in well MW-1 (117 ug/L) and atrazine in wells MW-1, MW-2, MW-6, MW-7 and MW-8 (see Table 2).
13. On November 9, 1983, the Mississippi Bureau of Pollution Control (MBPC) sampled wells MW-1, MW-4, MW-5, MW-6, MW-7, and MW-8. Analyses of these samples indicated 1,200 ug/L of dinoseb in well MW-1. Atrazine was detected in wells MW-1 (80 ug/L), MW-2 (10 ug/L), MW-5 (10 ug/L), MW-6 (100 ug/L), and MW-8 (110 ug/L).
14. In November 1983, CCC reported a statistically significant increase in total organic halides and specific conductance in well MW-1 when compared to the background MW-4.
15. On January 24, 1984, MBPC notified CCC of possible groundwater contamination at the Vicksburg Facility.
16. On December 14, 1984, MBPC sampled MW-1 and MW-8. Organic compounds detected in MW-1 included dinoseb (1000 ug/L) and trichloroethene (15 ug/L). Organic compounds detected in MW-8 included 2,5-diethyltetrahydrofuran (60 ug/L) and atrazine (60 ug/L) (see Table 2).
17. From May 23, 1985, through June 10, 1985, CCC sampled wells MW-1 through MW-8 and analyzed the samples for Appendix VIII constituents. The results of the analyses indicated the following (see Table 2):

Concentrations of several chemicals were detected in well MW-1 and not detected in background well MW-4: chromium (30 ug/L), chloroform (10.6 ug/L), cyanide (total - 72 ug/L), dinoseb (1130 ug/L), nickel (30 ug/L), pentachlorophenol (34 ug/L), and trichloroethene (19.5 ug/L).

TABLE 1

SITE FIELD INVESTIGATION -- OCTOBER 28, 1981  
SUMMARY OF REPORTED DATA

Constituent	Soil/Sediment Concentration (mg/kg)		
	VL-002 Erosional Area East Corner	VL-003 Erosional Area West Corner	SBU-001 Stouts Bayou Upstream-Control
Arochlor-1254 (PCB)	7.	ND <sup>a</sup>	ND
Atrazine	84.	13.	ND
Barium	213.	211.	64.
Chloroform	ND	0.010	ND
Chromium	30.	22.	ND
Cyanazine	21.	<7.6 <sup>b</sup>	-- <sup>c</sup>
Cyanide	0.86	0.58	ND
Dinoseb	ND	<15.	ND
Lead	20.	20.	ND
Mercury	0.12	ND	ND
Toxaphene	13.	65.	ND

Notes:

Data reproduced from U.S. Environmental Protection Agency, January 26, 1982.  
Report: Hazardous Waste Site Investigation, January 22, 1982, Vertac Chemical  
Corporation, Vicksburg, Mississippi.

- <sup>a</sup> ND indicates that the compound was analyzed for but not detected.
- <sup>b</sup> The less than symbol indicates that the compound was detected by GC/MS at a concentration less than the minimum quantifiable level (MQL). The number indicates the MQL.
- <sup>c</sup> The double hyphen indicates that the compound was not reported by the laboratory.

TABLE 2

SUMMARY OF ANALYSES OF WATER SAMPLES FROM  
MONITORING WELLS MW-1 THROUGH MW-8

Sheet 1 of 3

Constituent	Concentration (ug/L) and Well Number							
	1	2	3	4	5	6	7	8
** Sampled by Respondent on October 31, 1983 <sup>a</sup>								
Atrazine x 10 <sup>3</sup>	62.6	22.4	-- <sup>f</sup>	--	NR <sup>g</sup>	75.0	4.5	191
Dinoseb	117.	<25	--	--	NR	<25	<25	<25
Toxaphene	<0.3	<0.3	--	--	NR	<0.3	<0.3	<0.3
** Sampled by MBPC on November 9, 1983 <sup>b</sup>								
2-Bromo-cyclo- hexanol	5.	--	--	ND <sup>h</sup>	ND	ND	ND	ND
Atrazine	ND	--	--	ND	ND	20.	ND	150.
Dinoseb	1200.	--	--	ND	ND	ND	ND	ND
** Sampled by Respondent in November 1983 <sup>c</sup>								
Atrazine	80. <sup>i</sup>	10.	--	--	10.	100.	<10	110.
Dinoseb	<25	<25	--	--	<25	<25	<25	<25
Toxaphene	<5	<5	--	--	<5	<5	<5	<5
Total organic halide <sup>j</sup>	0.22	0.11	--	NR	0.046	0.054	0.044	0.014
Specific conductance (umhos) <sup>j</sup>	3988.	1022.	--	NR	1448.	1491.	778.	1095.
** Sampled by MBPC on December 14, 1984 <sup>d</sup>								
2-Bromo-cyclo- hexanol	100.	--	--	--	--	--	--	ND
2,5-Diethyl- tetrahydro- furan	ND	--	--	--	--	--	--	200.
Atrazine	ND	--	--	--	--	--	--	60.
Diethyl phthalate	140.	--	--	--	--	--	--	ND
Dinoseb	1000.	--	--	--	--	--	--	ND
Pentachloro- phenol	50.	--	--	--	--	--	--	ND
Trichloroethene	15.	--	--	--	--	--	--	ND

TABLE 2

SUMMARY OF ANALYSES OF WATER SAMPLES FROM  
MONITORING WELLS MW-1 THROUGH MW-8

Sheet 2 of 3

Constituent	Concentration (ug/L) and Well Number							
	1	2	3	4	5	6	7	8
** Sampled by Respondent in May and June 1985*								
Aroclor-1254	<1.0	<1.0	<1	<1.0	1.1	<1	<1	<1.0
Arsenic	<10	<10	<10	<10	19.	15.	30.	80.
Barium	302.	243.	360.	253.	614.	915.	400.	600.
Chloroform	10.6	<10	<1.6	<10	<1.6	<1.6	<1.6	<10
Chromium	30.	<30	<20	<30	<20	<20	<20	<30
Cyanide, Total	72.	<25	<25	<25	<25	120.	<25	<25
Copper	<10	<10	<10	<10	<10	20.	<10	<10
Dinoseb	1130	<25	<10	<25	<10	<10	<10	<25
Mercury	<0.2	<0.2	<0.2	<0.2	0.2	0.2	<0.2	<0.2
Nickel	30.	<20	<20	<20	<20	<20	<20	<20
Pentachloro-phenol	34	<25	<3.6	<25	<3.6	<3.6	<3.6	<25
Trichloro-ethene	19.5	<10	<1.9	<10	<1.9	<2.8	<1.9	<10

Notes:

- a Data reproduced from Dick Karkkainen, Vertac Chemical Corporation, January 13, 1984. Analytical Results for Ground-Water Sampling of Well Numbers 1, 2, 5, 6, 7, and 8, Taken in November 1983 at the Vicksburg Plant. Letter to Charles Estes, MDNR.
- b Data reproduced from James P. Minyard, Jr., Mississippi State Chemical Laboratory, December 16, 1983. Analytical Results for Vertac Well Water Samples Taken November 9, 1983.
- c Data reproduced from Dick Karkkainen, Vertac Chemical Corporation, March 9, 1984. Analytical Results for Ground-Water Sampling at the Vicksburg Plant. Letter to Chuck Estes, MDNR.
- d Data reproduced from Mississippi State Chemical Laboratory, Mississippi State University, February 18, 1985. Analytical Results of Ground-Water Samples from Vertac Chemical Wells #1 and #8.
- e Data reproduced from John G. Hill, Vertac Chemical Corporation, September 4, 1985. Appendix VIII Analytical Results for Ground-Water Monitoring Wells at the Vicksburg Plant. Letter to Charles Estes, MDNR.

TABLE 2

SUMMARY OF ANALYSES OF WATER SAMPLES FROM  
MONITORING WELLS MW-1 THROUGH MW-8

Sheet 3 of 3

---

Notes (Continued):

- f --; A hyphen indicates that the well was not sampled
  - g NR - not reported. These wells were reported to be sampled, but the data were not reported.
  - h ND - not detected.
  - i This value is semi-quantitative because of interference peak.
  - j These values are the results of averaging four measurements.
-



Barium was detected in all wells. Wells MW-5 and MW-8 showed barium concentrations twice as high as background, and well MW-6 showed barium three times higher than background.

Arsenic was detected in wells MW-5 (19 ug/L), MW-6 (15 ug/L), MW-7 (30 ug/L), and MW-8 (80 ug/L).

Cyanide was detected in well MW-1 (total - 72 ug/L) and well MW-6 (120 ug/L).

18. On several occasions in 1985, 1986, and 1987, dinoseb was detected in these wells ranging from 1130 ug/L in MW-15 on February 6, 1987, to 265 ug/L in well MW-1A on July 28, 1987 (see Table 3).
19. On August 20, 1985, EPA conducted a Preliminary Assessment/Site Investigation (PA/SI) at the Facility. The report stated that prior to and after closure of the inactive landfill several contaminated seeps or run-off streams were observed near Hennesseys Bayou.
20. On November 22, 1985, EPA conducted a loss of interim status inspection to verify that CCC was no longer placing hazardous waste in the surface impoundment at the south plant.
21. On August 6, 1986, EPA inspected the container storage area and adjacent returned product storage area at CCC. During the inspection, EPA noted that both areas had large spills on the ground. Floor drains and sumps in the container storage area were overflowing with waste-contaminated rain water. Spills were apparent by the presence of yellow and black stained areas on the ground.
22. During the August 6, 1986, there were 28 30-gallon drums of monosodium methane arsenate (MSMA) and 60 to 200 other drums of various sizes (55 - 75 gallons) containing dinoseb, MSMA, and other wastes. Many of the drums of dinoseb were leaking.
23. On September 3, 1986, MBPC conducted sampling to determine if hazardous wastes were entering the surface impoundment through spills from process areas. Dinoseb, atrazine and several metals were present in most of the samples. A summary of the results is presented in Table 4 and discussed below:

The highest concentrations of dinoseb were found in sediment at the returned product storage area (330,000 mg/L) and the sediment in cell 1 of the surface impoundment (13,000 mg/L). Dinoseb was also detected in the water samples taken from: (1) the sump below the dinoseb drumming area (260 mg/L), (2) the sump northwest of the dinoseb plant (300 mg/L), (3) the sump near the returned product storage area (130 mg/L), and (4) the influent pipe to the surface impoundment (8 mg/L).

TABLE 3

ANALYSES OF WATER FROM SEVERAL WELLS FOR DINOSEB

Date	Dinoseb Concentration (ug/L)			
	MW-1	MW-1A	MW-9	MW-15
October 15, 1985 <sup>a</sup>	370.	-- <sup>a</sup>	--	--
December 6, 1985 <sup>a</sup>	600.	--	125.	--
March 5, 1986 <sup>b</sup>	940.	--	<40	--
July 28, 1986 <sup>c</sup>	--	265.	--	--
July 29, 1986 <sup>c</sup>	--	380.	--	--
February 6, 1987 <sup>d</sup>	--	290.	<40	1130.

Notes:

- <sup>a</sup> Data reproduced from IT Corporation, January 8, 1986. Final Report, Groundwater Assessment Program, Prepared for Vertac Chemical Corporation, Vicksburg, Mississippi, IT Corporation Project No. 846545-02.
- <sup>b</sup> Data reproduced from John G. Hill, Environmental Engineer, Vertac Chemical Corporation, March 12, 1986. Letter to Jack McCord, Mississippi Department of Natural Resources, Bureau of Pollution Control, Industrial Wastewater Section. Subject: Latest Analytical Results.
- <sup>c</sup> Data reproduced from John G. Hill, Environmental Engineer, Vertac Chemical Corporation, August 4, 1986. Letter to Jack McCord, Mississippi Department of Natural Resources, Bureau of Pollution Control, Industrial Wastewater Section. Subject: Analytical results of groundwater samples from monitoring well MW-1A.
- <sup>d</sup> Data reproduced from John G. Hill, Cedar Chemical Corporation, February 16, 1987. Letter to Jack McCord, Mississippi Department of Natural Resources, Bureau of Pollution Control, Industrial Wastewater Section. Subject: Commission Order No. 1046-86.
- <sup>e</sup> A double hyphen (--) represents wells not sampled, data not reported, or not detectable

TABLE 4

SUMMARY OF RESULTS OF DINOSEB FLOW STUDY

Sample Location ID Letter <sup>a</sup>	Sample Type/Location <sup>b</sup>	Dinoseb	Atrazine	Total Chromium	Total Arsenic	Total Lead	Barium	Cadmium	Selenium
A	Water; Influent pipe to surface impoundment	8.	0.03	0.03	0.29	0.008	0.04	0.02	<0.003
B	Sludge; SI Cell No. 1	13,000.	5.	123.	382.	142.	64.2	1.90	2.68
C	Water; SI Cell No. 2	6.	0.03	0.05	0.74	0.01	0.06	0.01	0.05
C	Sludge; SI Cell No. 2	5.8	2.6	10.2	21.	5.3	49.3	1.30	0.50
D	Water; sump at returned product storage area	130.	15.	0.03	2.47	0.05	0.02	0.02	0.01
E	Water; sump below dinoseb drumming area	280.	0.2	108.	0.68	2.9	0.97	0.03	0.11
F	Sediment; returned product storage area	330,000.	ND <sup>c</sup>	47.1	44.3	16.7	78.5	5.5	4.06
G	Soil; northwest of dinoseb plant	96.	ND	40.1	27.8	170.	71.5	3.0	1.27
H	Water; sump northwest of dinoseb plant	300.	0.01	<0.3	0.02	0.02	0.05	0.01	<0.03

Notes:

Data reproduced from Jack McCord, MDNR, September 22, 1986. Memorandum to file. Subject: September 3, 1986 sampling trip to Vicksburg Chemical.

<sup>a</sup> Sample location identification letters are used in Figure 6.

<sup>b</sup> Concentrations of chemicals in water are reported in mg/L. Concentrations of chemicals in soil or sludge are reported in mg/kg.

<sup>c</sup> ND -- not detected.

Atrazine, arsenic, chromium, and lead concentrations of 5, 362, 123, and 142 mg/L, respectively, were detected in the surface impoundment sludge.

Concentrations of 15, 2.47, 0.03, and 0.05 mg/L, respectively, were detected in the sump water near the returned product area.

Concentrations of 0.2, 0.68, 108, and 2.9 mg/L, respectively, were detected in the sump water below the dinoseb drumming area.

Concentrations of 44.3, 47.1, and 16.7 mg/L, respectively, of arsenic, chromium, and lead were detected in the sediment at the returned product area and concentrations of 27.8, 40.1, and 170 mg/L, respectively, were detected in the soil northwest of the dinoseb plant.

24. On October 31, 1986, MBPC conducted a sampling investigation in CCC's surface impoundment. Eleven composite samples were collected and analyzed. The highest concentration of contaminants was found at depths of two to four feet. Contaminants found include arsenic ranging from 7.1 to 216 mg/kg, atrazine from 5 to 78,000 mg/kg, Arochlor - 1254 (PCB - 1254) from non-detectable to 58.4 mg/kg, Dinoseb from 3.7 to 5910 mg/kg, and toxaphene from non-detectable to 2320 mg/kg (see Table 5).
25. On February 19, 1987, EPA inspected CCC and noted two inches of standing yellow liquid in the dinoseb production area. At two locations, the liquids had apparently overtopped the production area berm and were running into a catch basin. Previously, the catch basin had drained to the surface impoundment.
26. In February 1987, EPA conducted a sampling investigation at CCC. Groundwater samples, streamwater samples, sediment samples and soil samples were all taken. Numerous chemical compounds were detected in these samples.

Samples from monitoring well MW-1 showed eleven organic compounds, including: tetrachlorophenol (2ug/L), dinoseb (562 ug/L), atrazine (26 ug/L), trichloroethene (8.5 ug/L) and pentachlorophenol (68 ug/L) (see Table 6).

Five organic compounds were detected in well MW-8 including: cyanazine (0.82 ug/L), and atrazine (63 ug/L) (see Table 6).

Two organic compounds were detected in MW-2: phenol and petroleum products (see Table 6).

Three organic compounds were detected in MW-6: cyanazine, atrazine and petroleum products (see Table 6).

TABLE 5

SUMMARY OF RESULTS OF SURFACE IMPOUNDMENT SEDIMENT STUDY (MG/KG)

Composite Samples Sample Numbers	Arsenic	Atrazine	Aroclor 1254	Dinoseb	Toxaphene	Others
** 0 to 2 feet						
1, 1A	114.	8,000.	ND <sup>a</sup>	1,600.	17.5	
2, 5	216.	2,000.	ND	160.	18.1	4-Nitrophenol 70.
3, 4	108.	360.	ND	620.	1.8	---
6, 7, 8	93.5	220.	ND	16.	1.2	4-Nitrophenol 30.
9, 10, 11, 12	29.2	13.	ND	11.	ND	4-Nitrophenol Trace
13, 14	41.	230.	ND	10.	ND	---
15, 16	57.8	1,500.	ND	4.	ND	---
17, 18	16.9	1,000.	51.9	6.	22.	---
19, 20	46.2	300.	4.7	92.	29.	4-Nitrophenol Trace
21, 22, 24	50.3	5.	9.2	60.	4.6	Pentachlorophenol 1.2
23, 25	96.5	--	33.8	--	42.9	---
** 2 to 4 feet						
1, 1A	143.	3,900.	ND	5,910.	2,320.	
2, 5	66.9	78,000.	ND	330.	541.	Methyl Parathion 400.
3, 4	40.1	30,000.	ND	1,100.	381.	---
6, 7, 8	7.9	15,000.	ND	25.	6.3	4-Nitrophenol 50.
						2,4-Dinitrophenol Trace
						4-Nitrophenol Trace
** 4 to 6 feet						
1, 1A	43.8	21,000.	ND	64.	535.	
2, 5	7.1	3,000.	58.4	40.	223.	1,2-Dichlorobenzene 20.
3, 4	14.5	9,000.	ND	770.	680.	Methyl Parathion 400.
6, 7, 8	9.0	8,000.	37.1	170.	322.	---

Notes:

Data reproduced from Mississippi State Chemical Laboratory, Mississippi State University, November 18, 1986. Analytical Results of 19 Sediment Samples from Vicksburg Chemical Company.

<sup>a</sup> ND - Not detected.

TABLE 6

GROUND-WATER DATA - SUMMARY OF HAZARDOUS CONSTITUENTS  
FEBRUARY 1987

Parameter (ug/L)	MW-1	MW-2	MW-4 <sup>a</sup>	MW-6	MW-8	P-01 <sup>b</sup>
Aluminum	1900.	26,000.	3,000.	6,600.	920.	1,100.
Arsenic	--	--	--	--	67.	140.
Barium	270.	450.	250.	600.	470.	37.
Chromium	38.	64.	--	11.	--	75.
Nickel	22.	--	--	--	--	--
Strontium	760.	560.	250.	610.	350.	85.
Zinc	--	91.	16.	21.	--	13.
Cyanide	--	NA	--	8.	--	--
Atrazine	26.	--	--	3.9	63.	29.
Bromacil	3JN	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	6.7
Carbon tetrachloride	--	--	--	--	--	70.
Chlorobis(methylethyl)- triazinediamine	--	--	--	--	3JN	--
Chloroform	2.8J	--	--	--	--	42.
Cyanazine	6.6J	--	--	1.2	0.82	1.3
Dibromochloromethane	--	--	--	--	--	4.2J
Dinoseb	562.	--	--	--	--	200JN
Methyl parathion	--	--	--	--	--	0.011J
Phenol	--	1.0J	--	--	--	--
Pentachlorophenol	68.	--	--	--	--	--
Petroleum product	N	N	--	N	N	--
Tetrachlorophenol	2JN	--	--	--	--	--
Trichloroethene	8.5	--	--	--	--	4.2J
Vinyl chloride	--	--	--	--	2.5J	--

Notes:

Data reproduced from U.S. Environmental Protection Agency, February 1987. RCRA  
Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.

<sup>a</sup> Upgradient well, used for comparison to wells downgradient of waste  
management units.

<sup>b</sup> Sample of influent liquid into surface impoundment.

-- Material was analyzed for but not detected.

J -- Estimated value.

N -- Presumptive evidence of presence of material.

NA -- Not analyzed

Soil sample CC-01 contained organic compounds including: toxaphene (6700 ug/kg), cyanazine (6000 ug/kg) and atrazine (100,000 ug/kg). Ten polynuclear aromatic hydrocarbons (PAH total - 33,890 ug/kg) and arsenic (53 mg/kg) were also detected (see Table 7).

Soil sample CC-02 contained the following organic compounds: atrazine (5000 ug/kg), cyanazine (240 ug/kg), and toxaphene (3700 ug/kg) (see Table 7).

Soil sample CC-03 contained organic compounds including: atrazine (5400 ug/kg), and cyanazine (30 ug/kg). Ten PAH compounds were also identified in the soil (total PAH - 11,920 ug/kg). Metals detected included arsenic (19 mg/kg) and mercury (0.1 mg/kg) (See Table 7).

Soil sample CC-04 contained organic compounds including: atrazine (4000 ug/kg), dinoseb (640,000 ug/kg) and eight PAH compounds (total PAH - 18,900 ug/kg) (see Table 7).

Soil sample CC-05 contained organic compounds including: atrazine (32 ug/kg), dinoseb (12,000 ug/kg), and toxaphene (47,000 ug/kg). PAH compounds found totalled 3100 ug/kg (see Table 7).

Soil sample CC-06 contained organic compounds including: atrazine (25 ug/kg) and Arochlor - 1254 (200 ug/kg). Metals were also detected including: arsenic (10 mg/kg) and mercury (0.25 mg/kg) (see Table 7).

Water sample A-3 and sediment sample A-3S contained numerous organic compounds including: atrazine (0.64 ug/L) and Arochlor - 1254 (3 ug/L) (see Table 8 and 9).

Water sample A-2 contained atrazine (0.18 ug/L), and diethyltetrahydrofuran (7 ug/L) and sediment sample A-2S contained Arochlor -1254 (3700 ug/kg) (see Table 8 and 9).

Water sample E-1 contained arsenic (89 ug/L), atrazine (26 ug/L), cyanazine (6.8 ug/L), dinoseb (4.6 ug/L) and trichloroethene (11 ug/L). Sediment sample E-1S contained arsenic (44 ug/kg), atrazine (970 ug/kg), pyrene (600 ug/kg), Arochlor - 1254 (7400 ug/kg) and toxaphene (56,000 ug/kg) (see Table 8 and 9).

Additional compounds were found in water and sediment samples as shown in Table 8 and 9.

27. In February 1989, EPA again conducted a sampling investigation at CCC. The investigation included groundwater and soil samples. Generally the samples again showed contamination with organics and metals (see Tables 10 and 11).

TABLE 7

SOIL DATA - SUMMARY OF HAZARDOUS CONSTITUENTS  
FEBRUARY 1987

Parameter (mg/kg)	CC-01	CC-02	CC-03	CC-04	CC-05	CC-06
Aluminum	6,000	4,500	11,000	7,200	8,800	6,200
Arsenic	53	550	19	18	27	10J
Barium	100	72	150	100	140	210
Chromium	44	14	27	37	18	12
Mercury	--	--	0.1	--	--	0.25
Strontium	34	190	35	39	35	48
Zinc	53	130	65	75	94	35
(ug/kg)						
Atrazine	100,000JN	5,000	5,400	4,000	32J	25J
Cyanazine	6000JN	240	30J	--	--	--
Dinoseb	--	--	--	640,000	12,000	--
Heptachlor epoxide	38	--	--	--	--	--
Methyl ethyl ketone	--	--	--	23J	--	--
Arochlor-1254	--	--	710	--	--	200
Propazine	7,000JN	--	3,000JN	--	--	--
Toluene	--	--	--	3.8J	--	--
Toxaphene	6,700	3,700	--	--	47,000	--
Total PAHs	33,890	--	11,920	18,900	3,100	--
Total xylenes	--	--	--	2.8J	--	--

Notes:

Data reproduced from U.S. Environmental Protection Agency, February 1987. RCRA  
Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.

J = Estimated value.

N = Presumptive evidence of presence of material.



TABLE 8

STREAM WATER DATA - SUMMARY OF HAZARDOUS CONSTITUENTS  
FEBRUARY 1987

Parameter (ug/L)	A-1	A-2	A-3	B-1	B-2	C-1	D-1	E-1
Aluminum	260	370	1,100	440	780	3,900	2,900	420
Arsenic	--	--	--	--	--	--	--	89
Barium	80	120	220	170	170	170	160	170
Cyanide	6	--	--	--	--	--	--	--
Atrazine	--	0.18N	0.84JN	--	--	0.20N	0.28N	26A
Bromocyclohexene	--	--	1JN	--	--	--	--	--
Bromodichloromethane	3.6J	1.7J	1J	--	11	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--
Chloroform	5.1	4.9J	16	--	14	--	1.3J	--
Chlorocyclohexanol	--	--	5JN	--	--	--	2J	--
Chlorobis(methylethyl)- triastinediamine	--	--	--	--	--	--	--	--
Cyanazine	--	--	--	--	--	--	--	3JN
Dibromochloromethane	2.7J	1.2J	--	--	--	--	--	6.8A
Dichlorocyclohexane	--	--	70J	--	--	--	--	--
Diethyltetra- hydrofuran	--	7JN	10JN	--	--	--	--	--
Dihydroindolone	--	--	4JN	--	--	--	--	--
Dinoseb	--	--	--	--	--	--	--	--
Heptanol	--	--	8JN	--	--	--	--	4.6AN
Nitrosomorpholine	--	--	1JN	--	--	--	--	--
Arochlor-1254	--	--	3.0	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--
Tri(butoxyethanol)- phosphate	--	--	--	3JN	5JN	--	--	11
Toluene	0.8J	--	--	--	--	--	--	--
Three unidentified compounds	--	--	70J	--	--	--	--	--

Notes:

Data reproduced from U.S. Environmental Protection Agency, February 1987. RCRA Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.

A = Average value.

J = Estimated value.

N = Presumptive evidence of presence of material.

TABLE 9

STREAM SEDIMENT DATA - SUMMARY OF HAZARDOUS CONSTITUENTS  
FEBRUARY 1987

Parameter (mg/kg)	A-1s	A-2s	A-3s	B-1s	B-2s	C-1s	D-1s	E-1s
Aluminum	7,400	11,000	4,500	5,500	8,400	13,000	11,000	5,000
Arsenic	--	9.2	--	--	--	6.0	6.9	44
Barium	120	260	220	120	130	62	170	96
Chromium	13	22	97	17	14	12	17	71
Nickel	11	21	14	8.4	13	7.0	16	9.6
Lead	14	20	13	45	21	11	15	8.8
Mercury	--	0.12	--	--	--	--	--	--
Strontium	33	24	84	51	28	19	29	35
Zinc	66	78	35	51	62	19	52	41
<hr/>								
ug/kg								
Atrazine	--	--	--	--	--	--	--	970
Chloroform	--	--	8.4	--	--	--	--	--
Chrysene	1,300J	--	--	--	--	--	--	--
Fluoranthene	1,300J	--	--	--	--	--	--	--
PCB-1254	--	3,700	--	--	--	--	--	--
Pyrene	1,400J	--	--	--	--	--	--	7,400
Toluene	--	--	--	--	38	--	--	660J
Total unidentified alkylhydrocarbons	--	--	--	--	200J	--	--	--

Notes:

Data reproduced from U.S. Environmental Protection Agency February 1987. RCRA Environmental Investigation, Cedar Chemical Company, Vicksburg, Mississippi.

A = Average value.

J = Estimated value.

N = Presumptive evidence of presence of material.

Cyanide was detected in well MW-6 at a concentration of 0.006 mg/L.

Atrazine, cyanazine, and propazine was detected in MW-6 at concentrations of 17 ug/L, 47 ug/L and 2.6 ug/L, respectively.

Cyanide was present in samples CC-3 at a concentration of 01.14 mg/kg and CC-4 at a concentration of 58.0 mg/kg.

Dinoseb at a concentration of 15 ug/kg was detected in the background soil sample. It was also present in the other four samples collected at concentrations ranging from 96 ug/kg to 380,000 ug/kg in samples CC-2 and CC-4, respectively.

From one to six additional pesticide/PCB compounds were detected in these four samples. These ranged in concentration from 53 ug/kg for heptachlor epoxide in sample CC-1 to 140,000 ug/kg for toxaphene in sample CC-4.

One extractable organic compound (EOC) was detected in one well sample. Thirteen EOCs were detected in one soil sample and two to four in the rest. One EOC, (methylpropyl)dinitrophenol, was found at high concentrations in three of the five soil samples.

## II

### CONCLUSIONS OF LAW

Based on the Findings of Fact set out above, the Director of the Waste Management Division, Region IV, EPA, concludes that:

1. Cedar Chemical Corporation (CCC) is a person within the meaning of Section 1004 (15) of RCRA, 42 U.S.C. Section 6903 (15).
2. CCC is an owner and operator of the Vicksburg facility.
3. The Vicksburg facility was authorized to operate under Section 3005(a) of RCRA, 42 U.S.C. Section 6925(a).
4. Certain wastes and waste constituents found at the CCC Facility are hazardous wastes and constituents thereof, as defined by Section 1004 (5) of RCRA, 42 U.S.C. Section 6921, and 40 C.F.R. Part 261.

## III

### DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set out above, the Director of the Waste Management Division, Region IV, EPA determines that:

1. There is or has been a release of hazardous wastes and/or hazardous constituents into the environment from the CCC Facility.

TABLE 10

ANALYTICAL DATA SUMMARY (GROUND WATER)  
CEDAR CHEMICAL CORPORATION  
VICKSBURG, MISSISSIPPI  
FEBRUARY 1989

	CC-TB TRIP BLANK 02/01/89 1610	MW-4 UPGRAONT WELL 01/31/89 1230	MW-16 NEW WELL 01/31/89 1543	MW-6 DOWNGRAD WELL 02/01/89 0930	MW-7 DOWNGRAD WELL 02/01/89 1000	MW-2 DOWNGRAD WELL 02/01/89 1540
INORGANIC ELEMENTS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
CALCIUM	--	97	74	220	100	150
IRON	--	0.59	3.8	3.9	3.4	3.8
MAGNESIUM	--	43	29	120	46	63
SODIUM	--	15	12	28	16	28
	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
ALUMINUM	--	620	410	3200	1300	2600
BARIUM	--	210	320	420	290	260
CHROMIUM	--	--	--	10	--	--
COBALT	--	--	--	19	--	--
MANGANESE	--	340	190	340	1100	480
STRONTIUM	--	230	270	490	310	460
TITANIUM	--	30	17	130	48	130
ZINC	--	13	20	22	15	36
GENERAL INORGANIC PARAMETERS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
CYANIDE	--	--	--	.006	--	--
PESTICIDE/PCB COMPOUNDS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
ATRAZINE	--	--	--	17C	--	--
CYANAZINE	--	--	--	47C	--	--
DINOSES (DNBP)	--	--	--	1.2	1.2	--
PROPAZINE	--	--	--	2.6C	--	--
EXTRACTABLE ORGANIC COMPOUNDS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
CHLOROBIS(METHYLETHYL)TRIAZINEDIAMINE	--	--	--	2JN	--	--
PURGEABLE ORGANIC COMPOUNDS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
1,1,1-TRICHLOROETHANE	--	--	--	--	0.60J	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	3.6J
TRICHLOROETHENE (TRICHLOROETHYLENE)	--	--	--	--	--	1.1J

\*\*\*\*\*FOOTNOTES\*\*\*\*\*

- NA - NOT ANALYZED
- J - ESTIMATED VALUE
- N - PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
- - MATERIAL WAS ANALYZED FOR BUT NOT DETECTED
- C - CONFIRMED BY GC/MS

TABLE 11

ANALYTICAL DATA SUMMARY (SOIL)  
CEDAR CHEMICAL CORPORATION  
VICKSBURG, MISSISSIPPI  
FEBRUARY 1989

	CC-8G BACKGROUND SOIL 02/01/89 1300	CC-1 S. END OF PLANT 02/01/89 1310	CC-2 S.E. END IMPOUND 02/01/89 1355	CC-3 S.E. END LANDFILL 02/01/89 1420	CC-4 SW OF NW-10 02/01/89 1500
INORGANIC ELEMENTS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
ALUMINUM	19000	8200	7800	12000	7100
ARSENIC	--	13	--	--	7.2
BARIUM	140	96	120	--	110
CALCIUM	1700	31000	30000	28000	31000
CHROMIUM	10	22	12	16	36
COBALT	6.7	3.5	4.3	6.2	2.9
COPPER	17	14	12	13	26
IRON	24000	20000	13000	16000	16000
LEAD	--	--	17	14	49
MAGNESIUM	3400	14000	13000	13000	8200
MANGANESE	730	420	460	530	220
MERCURY	--	--	--	--	0.26
MOLYBDENUM	--	--	--	--	2.3
NICKEL	19	12	12	15	13
POTASSIUM	1900	1100	1100	1400	910
SODIUM	--	--	870	380	270
STRONTIUM	22	28	32	29	32
TITANIUM	510	240	360	280	300
VANADIUM	44	22	22	28	19
YTRIUM	11	8.2	9.0	11	6.9
ZINC	89	43	59	43	82
GENERAL INORGANIC PARAMETERS	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
CYANIDE	--	--	--	0.14	58.0A
PESTICIDE/PCB COMPOUNDS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
ATRAZINE	--	680J	200JN	100J	6800J
DIELDRIN	--	--	--	--	530J
DINOSB (DNBP)	15	230000	96	57000	380000
ENDRIN	--	--	--	--	1500J
ENDRIN KETONE	--	--	--	--	430
HEPTACHLOR EPOXIDE	--	93	--	--	--
METHYL PARATHION	--	1300	--	--	820J
TOXAPHENE	--	48000	--	--	160000JN
EXTRACTABLE ORGANIC COMPOUNDS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
4-NITROPHENOL	--	920J	--	--	--
BENZO(B AND/OR K)FLUORANTHENE	--	290J	--	--	--
BENZO(GHI)PERYLENE	--	100J	--	--	--
CHRYSENE	--	180J	--	--	--
FLUORANTHENE	--	310J	--	--	--
HEXACHLOROBENZENE (HCB)	--	140J	--	--	--
PHENANTHRENE	--	190J	--	--	--
PYRENE	--	260J	--	--	--
(METHYLPROPYL)DINITROPHENOL	500JN	400000JN	200000JN	200JN	487JN
1 UNIDENTIFIED COMPOUND	--	--	--	--	200000J
2 UNIDENTIFIED COMPOUNDS	--	10000J	--	--	--
BUTYLDINITROANISOLE	--	10000JN	--	--	--
DIMETHYLHEPTANONE	--	--	600JN	800JN	--
HEXABROMOCYCLOHEXANE	400JN	300JN	800JN	800JN	--
NITROXYNITROBENZENE	--	800JN	--	--	--
OCTANOIC ACID	--	--	300JN	200JN	--
PURGEABLE ORGANIC COMPOUNDS	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
ACETONE	--	--	--	--	330J
METHYL ETHYL KETONE	--	--	--	--	96J
O-XYLENE	--	--	--	--	9.9J
FOUR UNIDENTIFIED COMPOUNDS	--	--	--	300JN	--
TRIMETHYLBENZENE	--	--	--	--	30JN

\*\*\*FOOTNOTES\*\*\*

- A - AVERAGE VALUE
- NA - NOT ANALYZED
- J - ESTIMATED VALUE
- N - PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
- - MATERIAL WAS ANALYZED FOR BUT NOT DETECTED

2. Corrective action will be required to protect human health and the environment.

Patrick M. Tobin

Patrick M. Tobin, Director  
Waste Management Division  
United States Environmental  
Protection Agency  
Region IV

10-16-89

Date



Mississippi Department of Environmental Quality  
Office of Pollution Control

**I-sys 2000 Master Site Detail Report**

**Site Name: Vicksburg Chemical Company**

<b>PHYSICAL ADDRESS</b> LINE 1: 4280 Rifle Range Road LINE 2: LINE 3: MUNICIPALITY: Vicksburg STATE CODE: MS ZIP CODE: 39180-	<b>OTHER INFORMATION</b> MASTER ID: 001766 COUNTY: Warren REGION: CRO SIC 1: 2812 AIR TYPE: TITLE V HW TYPE: LARGE QUANTITY SOLID TYPE: WATER TYPE: INDUSTRIAL BRANCH: Chemical Branch ECED CONTACT: Mills, Scott BASIN:
<b>MAILING ADDRESS</b> LINE 1: PO Box 821003 LINE 2: LINE 3: MUNICIPALITY: Vicksburg STATE CODE: MS ZIP CODE: 39182-	

**AIR PROGRAMS** ☒ SIP ☒ PSD ☒ NSPS ☐ NESHAPS ☐ MACT



**Mississippi Department of Environmental Quality  
Office of Pollution Control**

<b>Pemits</b>				
PROGRAM	PERMIT TYPE	PERMIT #	MDEQ PERMIT CONTACT	ACTIVE
AIR	CONSTRUCTION	278000041	Smith, Adam	YES
AIR	CONSTRUCTION	278000041	Smith, Adam	YES
WATER	NPDES - MAJOR	MS0027995		YES
GENERAL	SARA TITLE III	MSR110030	Lavallee, Louis	YES
HAZ. WASTE	EPA ID	MSD990714081	Lee, David	NO
AIR	CONSTRUCTION	278000041	Summers, Jacqueline	YES
AIR	TITLE V	278000041		YES
<b>Compliance Actions</b>				
MEDIA	ACTIVITY TYPE	SCHEDULED	COMPLETED	INSPECTED B
WATER	CMI - NPDES	2/1/00	2/15/00	Taylor, Mike
WATER	CMI - NPDES	7/1/00		Taylor, Mike
WATER	CEI - NA	9/30/00	1/24/00	Bailey, Steve
HAZ WASTE	Compliance Evaluation Inspection	9/30/00	1/24/00	Bailey, Steve
AIR	State Compliance Inspection	9/30/00	1/24/00	Bailey, Steve
AIR	State Received Source Test Report		8/31/99	Bailey, Steve
AIR	Stack Test Performed		7/12/99	Bailey, Steve
WATER	CEI - NA	6/1/99	4/29/99	Bailey, Steve
WATER	CMI - NA	2/1/99	2/9/99	
WATER	CEI - NA	1/14/99	1/12/99	Bailey, Steve
HAZ WASTE	Compliance Evaluation Inspection	1/14/99	1/12/99	Bailey, Steve
AIR	State Compliance Inspection	1/14/99	1/12/99	Bailey, Steve
<b>Enforcement Actions</b>				
MEDIA	ENFORCEMENT STEP	DETERMINED	RESOLVED	EMPLOYEE ASSIGNE
WATER	AGREED ORDER	6/9/99	6/9/99	Bailey, Steve
AIR	AGREED ORDER	2/2/00	5/31/00	Bailey, Steve



## Add a New Site

Site Name: Vicksburg Chemical Company

Official / Legal Name:

Air Type: MAJOR

Water Type: Industrial

HW Type: LQG

## Site General Information

County: Warren

Contact Name: John H miles

Contact Title: Vice President Plant Manager

Contact Phone: 601 636 1231

Physical Address Rifle Range Road

City, State, Zip: Vicksburg MS 39182

Mailing Address: PO Box 821003

City, State, Zip: Vicksburg MS 39182

**Owner's Name:**

**Owner's Address:**

**City, State, Zip:**

**Operator or:**

**Contractor Name:**

**Address: \_\_\_\_\_ City, \_\_\_\_\_**

**State, Zip:**

## Site Identification Information

**Edinburgh**

32819

#SIC2:

**SIC35**

00041

5 digit ID assigned by Air Division

MSD990714D&I

### Dunn and Bradstreet Number

7) Facility has a TSA permit also  
- please check info

# Permit Types and Subtypes

\*Revised 8/6/98\*

**Air:** Title V, SMOP, SOP, Construction

- For all sites, you need to enter all Construction permits issued since 1/1/97.
- For Non-Title V Sources, you need to enter the most recent Operating Permit (SMOP or SOP) with its attendant Issuance Date, Expiration Date, and Last Modification Date (if applicable) even if the Expiration Date has already passed.
- For Title V Sources, enter the Title V Operating Permit information. If the Title V Operating Permit has not been issued, then you do not need any other operating permit information entered.

**Water:** NPDES, Storm, SOP, Pre-Treatment, NPDES-Major

- Animal Waste Permits should be entered as their appropriate permit type: NPDES or SOP

**General:** Baseline, Mining, SARA Title III, Land Disposal, Primary Metal, Wood Treating, Coal Pile, Oil & Gas, Construction, Ready-Mix Concrete

**Haz Waste:** TSD

**Multimedia:** Air, Hazardous Waste, Water, Air-Water, Air-Hazardous Waste, Hazardous Waste-Water, and Air-Hazardous Waste-Water

**Geology:** Mining

**L & W:** Surface Withdrawal, and Sub-Surface Withdrawal

**Permit Actions:** Modify-Modification (MM), Modify-Transfer (MT), Modify-Name Change (NC), Re-Issue (R), Issue (IS), Inactive (IN), or Revocation (RV)

Permit Type	Permit Action	Subtype	Permit Number	Person	Application Received Date	Date Receipt Letter Sent	Issuance Date	Date of Last Modification	Expiration Date
Air	IS	Construction	2780-00041	C Adam Smith	10/13/97	10/16/97	4/16/98	N/A	
General		SARA III	MSR110030	NAMEH Saker	9/17/92	N/A	10/27/92	1/17/96	7/13/97
Water	MM	NPDES	MS00027995	Ken Lafleur			9/10/96	5/22/98	9/9/01
Air	IS	Construction	2780-00041	C Adam Smith	8/13/97	8/22/97		N/A	
HW		Large	MSD990714081	David Lee					

Completed By: C Adam Smith

OA / OC Date:

# Vicksburg Chemical Company

Master AI ID: 1766

Start Date: 10/27/1992

Agency Interest Type: Chemical Branch

End Date:

SIC 1: 2873

County: Warren

AI Basin: Mississippi River Basin - direct dischargers to MS

## Alternate/Historic AI Identifiers

Alt/Hist ID	Alternate/Historic Name	User Group	Start	End
1766	Vicksburg Chemical Company	Official Site Name	10/27/1992	
14900041	Vicksburg Chemical Company	Air-AIRS AFS	10/12/2000	
MSD990714081	Vicksburg Chemical Company	Hazardous Waste-EPA ID	10/12/2000	
278000041	Vicksburg Chemical Company	Air-Title V Operating	9/22/2000	
278000041	Vicksburg Chemical Company	Air-Title V Operating	2/14/2000	2/1/2005
278000041	Vicksburg Chemical Company	Air-Construction	3/12/1999	
278000041	Vicksburg Chemical Company	Air-Construction	4/16/1998	
278000041	Vicksburg Chemical Company	Air-Construction	6/26/1997	
MSR110030	Vicksburg Chemical Company	GP-Sara Title III	10/27/1992	
MS0027995	Vicksburg Chemical Company	Water-NPDES	9/10/1996	9/9/2001
MS0027995	Vicksburg Chemical Company	Water-NPDES	9/24/2001	8/31/2006

## Regulatory Programs

Program	Sub-Program
Air	PSD
Air	Title V - major
General Permit	
Hazardous Waste	Large Quantity Generator
Water	NPDES Major Industrial
Water	NPDES Major Industrial - WET

## AI Location and Mailing Information

Physical Address (Primary)	Mailing Address
4280 Rifle Range Road Vicksburg, MS 39180	PO Box 821003 Vicksburg, MS 39182

Location Information (Map It)	
Latitude: 32° 17' 43.5"	Longitude: -90° 54' 22.0"
Method: GPS Code (Psuedo Range) Standard Position (SA Off)	
Datum: NAD83	
Type: MDEQ	
Section - Township - Range: - -	

Telecommunications	
Type	Address or Phone
Work phone number	(601) 636-1231

Staff to AI Assignments	
Person Name	Assignment
Sumrall, Rick	Compliance, Management
Mills, Scott	Compliance, Staff
Mills, Scott	Enforcement
Cook, Toby	Permitting, Branch Manager
Taylor, John	Permitting, Permit Writer
Taylor, Mike	Regional Office, Management

Related People			
Person	Relationship	Start	End
Boswell, Steve	Is Air Permit Contact For	1/1/1980	
Boswell, Steve	Is Air Permit Contact For	1/1/1980	
Boswell, Steve	Is Contact For	1/1/1980	
Boswell, Steve	Is Contact For	1/1/1980	
Boswell, Steve	Is Water Permit Contact For	2/15/2001	
Boswell, Steve	Is Water Permit Contact For	2/15/2001	
Boswell, Steve	Is Application Signatory for	3/28/2001	3/28/2001
Miles, John	Is Application Signatory for	3/28/2001	

**Related Organizations**

Organization	Relationship	Start	End
--------------	--------------	-------	-----

Last Updated: 8/27/2001 9:30:40 AM

MDEQ OPC

MDEQ OPC Locational Data Entry Form

Page 1 of 1

Site Name: Vicksburg Chemical Company

Address: 4280 Rifle Range Road

City: Vicksburg State: MS Zip: 39180

County: WARREN

Site Unique Identifier: 2780-00041

Site Unique Identifier Description: Title V Permit #  
(Permit#, EPA ID, Monitoring Station #, etc...)

Latitude: 32 Degrees 17 Minutes 43.5 Seconds

Longitude: 90 Degrees 54 Minutes 22.0 Seconds

Elevation: — ft.

Method of Collection: — G3 - Differential  
✓ G5 - Autonomous/SA Off

Point Description: ✓ PG - Plant Entrance (General)  
— NE - NE Corner of Land Parcel  
— SE - SE Corner of Land Parcel  
— NW - NW Corner of Land Parcel  
— SW - SW Corner of Land Parcel  
— CE - Center of Facility  
— WL - Well\*  
— WM - Ambient Water Mon. Station  
— AM - Ambient Air Mon. Station

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*This point should be used only for wells in cases where there is no other identifiable facility.

Collected By: D. Scott Mills

Date Collected: 8/28/01

SUMMARY OF REGULATORY ACTIONS  
AND OTHER WORK PERFORMED AT  
CEDAR CHEMICAL CORPORATION  
VICKSBURG, MISSISSIPPI

40CFR 265.90 required that, by November 11, 1981, operators of surface impoundments or landfills must install and operate a groundwater monitoring system.

1. The first hydrogeological work performed at the Cedar Chemical site was done in September-October 1981. It is summarized in a report by Developers International Services Corporation (DISC) dated November 21, 1981. Four monitoring wells were installed as follows:
  - a) #1 - 30 feet BLS
  - b) #2 - 40 feet BLS
  - c) #3 - 30 feet BLS
  - d) #4 - 20 feet BLS

These wells were sampled:

- a) December 16, 1981
- b) April 13, 1982
- c) September 30, 1982
- d) December 27, 1982

See Memo to File from David Lee dated April 15, 1982

Four additional wells were installed in March 1983. Sampling occurred:

- a) June 3, 1983 (Wells 4,5,6,7,8 only)
- b) July , 1983 (Wells 4,5,6,7,8 only)
- c) October 31, 1983 (Wells 1,2,5,6,7,8)
- d) November 9, 1983 (MDNR sampled all 8 wells)
- e) February 1984 (Wells 1,2,5,6,7,8)
- f) December 1984 (MDNR sampled wells 1 and 8)
- g) May 1985 (Appendix VIII was done on all 8 wells)
- h) February 6, 1986 (Wells 1,4,9,10,11 for DNEP only)

- 2) A USEPA Site Investigation was conducted on October 28, 1981. Four sediment samples and two surface water samples were collected. Vertac submitted the report to MDNR on April 20, 1982. The focus of the investigation was a reclaimed pit (landfill) area just to the southeast of the lagoons. (I

believe this to be where the SWCA was placed in 1989).

- 3) Several soil samples were collected (see August 24, 1982 letter) to locate clean dirt for remedial activities. Additional soil samples were collected in this area on October 28, 1982.
- 4) Commission Order 599-82 was issued November 11, 1982.
- 5) The Part B was formally requested by EPA in early 1983 (perhaps January).
- 6) The dike to the lagoons ruptured in February 1983, releasing 700,000 gallons of wastewater into Stout's Bayou. MDEQ collected several samples.
- 7) In late February-early March 1983, four additional monitoring wells were installed by MCI of Memphis, Tennessee. See March 21, 1983 report by MCI.
- 8) Three seepage/leachate samples were collected by MDNR on March 1, 1983.
- 9) The Part B was submitted on August 10, 1983. EPA commented on September 16, 1983. MDNR issued comments September 29, 1983. A revised Part B was requested by MDNR on November 1, 1983. On December 22, 1983, Vertac resubmitted the revised Part B. Mississippi Commission on Natural Resources Order 717-84 was issued June 11, 1984. It required submittal of a groundwater assessment program and a revised Part B. The groundwater assessment plan was submitted on August 6, 1984. The revised Part B was submitted September 27, 1984. An interim report for the groundwater assessment program was submitted on April 15, 1985. Because many of Vertac's responses to "requests for additional information" were not in a form which could be incorporated into the Part B, MDNR requested on March 29, 1985 that Vertac resubmit a Part B, taking in all past comments and responses, plus additional info that MDNR felt was lacking. This revised Part B was submitted on June 18, 1985.
- 10) Wells 1 - 8 were sampled for Appendix VIII constituents on May 23, 1985.
- 11) A Notice-of-Violation (NOV) was issued to Vertac by EPA on September 12, 1985 due to failure by Vertac to submit exposure



information for the impoundment as required by 270.10(j)(2).

- 12) On November 14, 1985, MDNR sent an NOD to Vertac regarding its most recent (June 18, 1985) submittal of Part B.
- 13) On November 20, 1985, MCNR issued Order 948-85, requiring a revised closure/post closure, groundwater monitoring and corrective action plans.
- 14) In late 1985, Vertac installed four new monitoring wells, bringing the total to twelve onsite monitoring wells.
- 15) On July 9, 1986, Vertac filed a Motion-to-Dismiss, based on the idea that the South Plant surface impoundments should be exempt from RCRA regulation due to the "de minimis" exclusion of the mixture rule (40 CFR 261.3). The case was argued at the September 16, 1986, Mississippi Commission on Natural Resources hearing, but no verdict was given.
- 16) On July 10, 1986, a Show-Cause hearing was called for Vertac at MDNR offices on August 26, 1986.
- 17) On July 31, 1986, MNR Permit Board formally denied Vertac issuance of a hazardous waste storage permit.
- 18) Numerous sediment and water samples were collected by MDNR on September 3, 1986. Some splits were sent by Vertac to EPS Lab.
- 19) On December 17, 1986, the Commission ruled that, with regard to Dinoseb, the South Plant impoundments were exempt from RCRA regulation. EPA and MDNR then wanted to have the units regulated with regard to Toxaphene.
- 20) On August 5, 1987, the Mississippi Commission on Natural Resources ruled that the surface impoundment at Vertac (Cedar) was not a hazardous waste management unit for Toxaphene wastes. This, coupled with the ruling of the Commission on December 17, 1986, for Dinoseb, effectively ended the need for a RCRA permit for that unit.

However, the Drum Storage Area, which had been found to be mismanaged in previous inspections, was considered by EPA to not be a less-than-90 day storage unit.

- 21) Because that Cedar knew that EPA did not view the South Plant surface impoundments well in spite of the Commission's ruling, they offered to contain sediments from the impoundments by solidification and landfilling. The impoundments could then continue to be used for non-hazardous waste treatment. However, Cedar did not want to proceed without the blessings of EPA and MDNR (now DEQ). EPA and DEQ refused to formally approve the action until a closure plan was submitted.
- 22) The Closure/Retrofit plan was submitted in August 1988. The plan called for the removal of contaminated sediments from the surface impoundment system and solidification in a double-lined, capped, leachate collected Solid Waste Consolidation Area (SWCA). The impoundments were to then be retrofitted with a double-liner with leachate collection and leak detection.
- 23) Closure work began about January 1989 and concluded \_\_\_\_\_.

a: CEDRSMRY.DOC

40 CFR 265.90 required that, by 11/19/81, operators of surface impoundments or landfills must install & operate a GW monitoring system.

1. The first hydro work was done at the site in September/October 1981. It is summarized in a report by Developers International Services Corporation (DISC) dated November 21, 1981. Four monitoring wells were installed as follows:

- 1) #1 - 30 ft BLS
- 2) #2 - 40 ft BLS
- 3) #3 - 30 ft BLS
- 4) #4 - 20 ft BLS

These wells were sampled

- 1) 12-16-81
- 2) 4-13-82 — ? missed a quarter?
- 3) 9-30-82
- 4) 12-27-82

Four additional wells were installed 3/83

- 5) 6-3-83 (wells 4, 5, 6, 7, 8)
- 6) 7- -83 (wells 4, 5, 6, 7, 8)
- ~~7) 8-23-83 (wells 4, 5, 6, 7, 8)~~
- 7B) MDEQ Sampled all wells 11-9-83
- 8) 10-31-83 (wells 1, 2, 5, 6, 7, 8)

See Memo to File (GW), from David Lee dated 4/15/82

- Dec 1984 (BPC wells 1 & 8)  
9) Feb 1984 (Wells 1, 2, 5, 6, 7, 8)  
(10) May 1985 (Wells 1-8) App VIII  
11) Feb 6, 1986 (Wells 1, 4, 9, 10, 11; DNDP only)

2. A USEPA site investigation was conducted on October 28, 1981. Four sediment samples and two surface water samples were collected. Vertac submitted the report to MDEQ on 4/20/82. The focus of the investigation was a reclaimed pit <sup>(landfill)</sup> area just to the southeast of the lagoons. (I believe this to be where the SWCA was placed in 1989).

3. Several soil samples were collected (see August 24, 1982 letter) to locate clean dirt for remedial activities. Additional soil samples were collected in this area on October 28, 1982.

4. Commission order 599-82 was issued November 11, 1982

5. The Part B was formally requested <sup>by EPA</sup> in early 1983 (perhaps January)

6. The dike to the lagoons ruptured in Feb 1983, releasing about 700,000 gallons of wastewater into Stout's Bayou. MDEQ collected several samples

8. Three seepage/leachate samples were collected by DEQ on 3/1/83

7. In late February - early March 1983, 4 additional monitoring wells were installed by MCI of Memphis, Tennessee. See 3/21/83 report by MCI

9. The Part B was submitted on August 10, 1983. EPA commented on September 16, 1983. MDEQ issued comments September 29, 1983. A revised Part B was requested by MDEQ on November 1, 1983. On December 22, 1983, Vertac resubmitted the revised Part B. Because many of Vertac's responses to "requests for additional information" were not in a form which could be incorporated into the Part B, MDNR requested on March 29, 1985 that Vertac resubmit a Part B taking in all past comments and responses, plus additional info MDNR felt was lacking.

10. (Mississippi Commission on Natural Resources Order 717-84 was issued on June 11, 1984. It required submittal of a GW assessment program and a revised Part B. The GW assessment plan was submitted August 6, 1984. The revised Part B was submitted September 27, 1984.

a) The interim report for the GW assessment program submitted 4/15/85

10. Wells 1-8 were sampled for App VIII constituents on May 23, 1985.

12. A Notice-of-Violation (NOV) was issued to Vertac by EPA on Sept 12, 1985 due to failure to submit exposure information for the impoundment as required by 270.10(c)(2).

- This Part B was submitted on June 18, 1985.  
On November 14, 1985, MDNR sent a NOD to Vertac regarding its most recent Part B submittal

11. On November 20, 1985, MDNR issued Order 948-85, requiring a revised closure/part closure plan and groundwater monitoring and corrective action plan

12. In late 1985, Vertac installed 4 new monitor wells (called #'s 9, 10, 11, and 12)

13. On July 9, 1986, Vertac filed a Motion-to-Dismiss

14. On July 10, 1986, a show Cause hearing was called for Vertac @ MDNR on August 26, 1986

15. On July 31, 1986, MNR Permit Board formally denied <sup>Vertac</sup> issuance of a hazardous waste storage Permit. Also, closure plan comments were issued

16. Numerous sediment & water samples were collected by MDNR on September 3, 1986. Some splits were sent by Vertac to EPS

for toxaphene wastes

After <sup>the Commission's</sup> ruling of December 17, 1986 that the impoundment was not a hazardous waste management unit for Dinoseb, this

4. On August 5, 1987, the Mississippi Commission on Environmental Quality ruled that the surface impoundment at Cedar was not a hazardous waste management unit, effectively ending the need for a RCRA permit for that unit.

1. After several submittals of a Part B application <sup>by Cedar</sup> and having found them ~~inadequate~~ deficient, MDEQ requested a "show-cause" meeting on July 8, 1986

2. Cedar filed a Motion-to-Dismiss based on the idea that the South Plant surface impoundments should be exempt from RCRA regulation due to the "de minimus" exclusion of the mixture rule (40CFR261.3). The case was argued at the September 16, 1986 ~~Mississippi Commission on Environmental Quality hearing~~ Mississippi Commission on Environmental Quality hearing, but no verdict was given.

3. On December 17, 1986, the Commission ruled that, with regard to Dinoseb, the South Plant impoundments were exempt from RCRA regulation. EPA and MDEQ then wanted to have the units regulated under RCRA with regards to Toxaphene.

5. However, the Drum Storage Area, which had been found mismanaged in previous inspections, was considered by EPA not to be a less-than-90 day unit.

6. Because Cedar knew that EPA did not view the South Plant surface impoundments well in spite of the Commission's ruling, they offered to contain sediments from the impoundments by solidification and landfilling. The impoundments could then continue to be used for nonhazardous waste treatment. However, Cedar did not want to proceed without the blessings of EPA and MDEQ. EPA + MDEQ refused to comment until a formal closure plan was submitted

7. The Closure / Retrofit plan was submitted in August 1988. The plan called for the removal of contaminated sediments from the surface impoundment system and solidification in a double-lined Solid Waste Consolidation Area (SWCA). The impoundments were to then be retrofitted with a double-lined, leachate collection system.

leachate  
collection  
copper

CERCLA

*Arkansas Department of Pollution Control and Ecology v. Vertac Chemical Corporation*, No. LR-C-80-110 (E.D. Ark. Nov. 2, 1993)

The U.S. Defense Department, Dow Chemical Company, and Velsicol Chemical Corporation, three of the five potentially responsible parties in the Vertac hazardous waste litigation, have agreed to pay \$2.5 million to Arkansas to settle their liability under the Comprehensive Environmental Response, Compensation, and Liability Act. This is the largest environmental recovery in the state's history.

Under the proposed settlement, subject to court approval, the Defense Department would pay \$1.4 million, Dow would pay \$1 million, and Velsicol would pay \$100,000. The site contained more than 28,000 barrels of waste contaminated by dioxin and other hazardous chemicals which had to be disposed. Of those, more than 14,000 barrels have been properly incinerated on site.

[For further information, contact Arkansas AAG Charles Moulton at (501) 682-8088.]

Federal Facilities

*In re Naval Construction Battalion Center*, No. RCRA I-99-1099 (U.S. EPA Region 1 Oct. 6, 1993)

In the first action of its kind in New England, U.S. EPA has proposed a \$101,062 penalty against the Naval Construction Battalion Center in Davisville, Rhode Island, for violations of the Resource Conservation and Recovery Act. According to EPA, the Navy failed to adequately train base personnel in the handling and management of hazardous wastes, failed to properly identify wastes prior to disposal, failed to regularly inspect waste containers, and failed to keep records on wastes and waste disposal operations.

The Navy facility is scheduled for closure by the summer of 1994.

[For further information, contact Kenneth Rota, Region I, at (617) 573-5758.]

## CRIMINAL PROSECUTIONS

## Indictments

Asbestos

*Massachusetts v. Bernard L. Pemstein and Darryl Saad*, No. 93-0668 (Super. Ct. Worcester County Nov. 9, 1993)

Two Massachusettsmen, a commercial property owner and a contractor, have been indicted on charges of illegally removing asbestos from an industrial building. Bernard L. Pemstein owned a building in Worcester that had been the former offices of Astro Wire & Cable Company. He allegedly contracted with Darryl Saad to remove asbestos from heating pipes inside the building. Saad is not a licensed asbestos contractor and the men doing the work were evidently not properly certified by the state Department of Labor and Industries. Approximately ninety garbage bags, allegedly full of asbestos insulation material, were found inside the building.

[For further information, contact AAG Edward De Angelo at (617) 727-2200.]

Water

*Iowa v. City of Winterset, Mark J. Nitchals, Robert W. Howell, and James Hochstetler*, No. CR 3116 (Dist. Ct. Madison County Nov. 5, 1993)

Charges have been filed against an Iowa city, its mayor, city administrator, and a consulting engineer, alleging that they conspired to knowingly discharge untreated sewage into the environment and falsified reports on the unauthorized sewage bypass. An investigation by the state's E-Team revealed that three pumps had been installed to pump raw sewage from the sanitary sewer system into the storm sewer or onto the street at certain times when the sewer system was full. The purpose of the pumps was apparently to relieve excess sewage from the sanitary sewer collection system. The city had made no reports to the state's Department of Natural Resources of bypasses of sewage from the collection and sewage treatment system.

[For further information, contact Iowa AAG Douglas Marek at (515) 281-3648.]

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



# Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received  
(For Official Use Only)

## I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. First Notification

☐
B. Subsequent Notification  
(complete item C)

C. Installation's EPA ID Number

M S D 9 9 0 7 1 4 0 8 1

## II. Name of Installation (Include company and specific site name)

V I C K S B U R G C H E M I C A L C O M P A N Y

## III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

R I F L E R A N G E R O A D

Street (continued)

City or Town

V I C K S B U R G

State

ZIP Code

M S 3 9 1 8 2 - 0 0 0 3

County Code

County Name

1 4 9 W A R R E N

## IV. Installation Mailing Address (See Instructions)

Street or P.O. Box

P O B O X 8 2 1 0 0 3

City or Town

V I C K S B U R G

State

ZIP Code

M S 3 9 1 8 2 - 0 0 0 3

## V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (last)

(first)

M I L E S J O H N

Job Title

Phone Number (area code and number)

P L A N T M A N A G E R 6 0 1 - 6 3 6 - 1 2 3 1

## VI. Installation Contact Address (See Instructions)

A. Contact Address  
Location Mailing

B. Street or P.O. Box

☐
☒

P O B O X 8 2 1 0 0 3

City or Town

V I C K S B U R G

State

ZIP Code

M S 3 9 1 8 2 - 0 0 0 3

## VII. Ownership (See Instructions)

### A. Name of Installation's Legal Owner

V I C K S B U R G C H E M I C A L C O M P A N Y

Street, P.O. Box, or Route Number

P O B O X 8 2 1 0 0 3

City or Town

V I C K S B U R G

State

ZIP Code

M S 3 9 1 8 2 - 0 0 0 3

Phone Number (area code and number)

B. Land Type

C. Owner Type

D. Change of Owner Indicator

(Date Changed)

6 0 1 - 6 3 6 - 1 2 3 1 P P Yes X No 0 1 0 1 9 3

FILE COPY

ID - For Official Use Only

## VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions.)

## A. Hazardous Waste Activity

## B. Used Oil Fuel Activities

## 1. Generator (See Instructions)

- ☒ a. Greater than 1000kg/mo (2,200 lbs.)  
☐ b. 100 to 1000 kg/mo (220 - 2,200 lbs.)  
☐ c. Less than 100 kg/mo (220 lbs.)

## 2. Transporter (Indicate Mode in boxes 1-5 below)

- ☐ a. For own waste only  
☐ b. For commercial purposes

## Mode of Transportation

- ☐ 1. Air  
☐ 2. Rail  
☐ 3. Highway  
☐ 4. Water  
☐ 5. Other - specify

## 3. Treater, Storer, Disposer (at installation)

Note: A permit is required for this activity; see instructions.

## 4. Hazardous Waste Fuel

- ☐ a. Generator Marketing to Burner  
☐ b. Other Marketer  
☐ c. Burner - indicate device(s) -  
Type of Combustion Device

- ☐ 1. Utility Boiler  
☐ 2. Industrial Boiler  
☐ 3. Industrial Furnace

## 5. Underground Injection Control

## 1. Off-Specification Used Oil Fuel

- ☐ a. Generator Marketing to Burner  
☐ b. Other Marketer  
☐ c. Burner - indicate device(s) -  
Type of Combustion Device

- ☐ 1. Utility Boiler  
☐ 2. Industrial Boiler  
☐ 3. Industrial Furnace

2. Specification Used Oil Fuel Marketer  
(or On-site Burner) Who First Claims  
the Oil Meets the Specification

## IX. Description of Regulated Wastes (Use additional sheets if necessary)

## A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001) ☐ 2. Corrosive (D002) ☐ 3. Reactive (D003) ☐ 4. Toxicity Characteristic (D000) ☐

(List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s))

## B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
P O 2 O					
7	8	9	10	11	12

## C. Other Wastes. (State or other wastes requiring an I.D. number. See instructions.)

1	2	3	4	5	6

## X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature

Name and Official Title (type or print)

Date Signed

JOHN H. MILES

V. PRES. - OPERATIONS

1/15/93

## XI. Comments

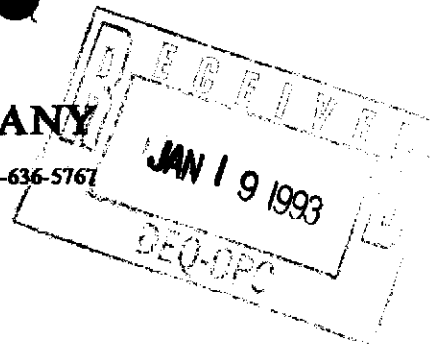
The facility does not generate hazardous wastes except to the extent that spent carbon used in its filter system is periodically removed for reclamation. Spent carbon is transported as P020 waste because of the presence of dinoseb.

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)



**VICKSBURG CHEMICAL COMPANY**

P.O. Box 821003 • Vicksburg, MS 39182 • 601-636-1231 • FAX 601-636-5767



January 15, 1993

Mr. David Lee  
RCRA Branch - Generator Section  
Mississippi Department of Environmental Quality  
Post Office Box 10385  
Jackson, Mississippi 39289-0385

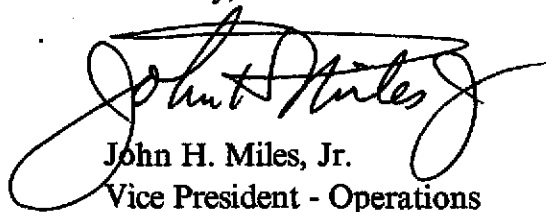
RE: EPA Waste Generator No. MSD 990714081  
Cedar Chemical Corporation  
Vicksburg, Mississippi

Dear David:

Enclosed herein is a completed notification form requesting that your records be amended to reflect that Cedar Chemical Corporation has conveyed its Vicksburg, Mississippi, facility to Vicksburg Chemical Corporation. It is my understanding that under the RCRA program no notification is required of EPA. Please advise if I am incorrect in this regard.

We sincerely appreciate your help in processing this change of ownership notification.

Sincerely,

  
John H. Miles, Jr.  
Vice President - Operations

JHM/sv

Enclosure

c: John Bumpers  
Dave Madsen

*Nike W  
Send note  
that we are state  
owned  
& do not require  
EPA Notification*



STATE OF MISSISSIPPI

DEPARTMENT OF ENVIRONMENTAL QUALITY

JAMES I. PALMER, JR.  
EXECUTIVE DIRECTOR

January 20, 1993

Vicksburg Chemical Company  
P.O. Box 821003  
Vicksburg, MS 39182-0003

Attn: Mr. John Miles

Re: Large Quantity Generator  
Number

This letter acknowledges receipt of your notification form applying for Mississippi Large Quantity Generator status.

The location identification number, MSD990714081, is assigned to:

Rifle Range Road

The above location with its assigned number is now designated as a Large Quantity Generator in our files. It is suggested that you secure and become familiar with Hazardous Waste Regulations, especially the chapters dealing with Large Quantity Generators. Your identification number must be used when manifesting any hazardous waste.

It is important that this office be notified in writing within seven (7) days of ANY changes of the information submitted on your notification form.

Should you have any questions please contact this office at (601) 961-5314.

Very truly yours,

Michael J. Weaver  
Hazardous Waste Division

Enclosure

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 626-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 285

November 7, 1989

Mr. Toby Cook  
Environmental Engineer  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

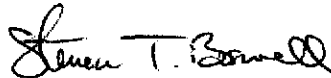
Subject: Cedar Chemical Corp.  
Notification of Hazardous Waste Activity

Dear Mr. Cook:

As you requested, please find enclosed an amended Notification of Hazardous Waste Activity naming Cedar Chemical Corporation as the owner of the Vicksburg Chemical Division installation. The Notification covers the wastes generated at this time. If new wastes are generated, the Notification will be further amended to reflect those wastes.

If there are questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

bc: Mr. Ahlers  
Mr. Madsen

## DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 11/10/89

COMMENTS copy sent to  
EPA

## Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law (*Section 3010 of the Resource Conservation and Recovery Act*).

### Comments

[illegible]

Installation's EPA ID Number													Approved		Date Received (yr. mo. day)					
C	M	S	D	9	9	0	7	1	4	0	8	1	T/A	C						
F														1						

C	E	D	A	R		C	H	E	M	I	C	A	L		C	O	R	P	O	R	A	T	I	O	N
---	---	---	---	---	--	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---	---	---

## Street or P.O. Box

[illegible]

City or Town														State	ZIP Code						
C	V	I	C	K	S	B	U	R	G						M	S	3	9	1	8	1

## Street or Route Number

[illegible]

City or Town															State		ZIP Code					
C	V	I	C	K	S	B	U	R	G							M	S	3	9	1	8	0

## Name and Title (last, first, and job title)

C	B	O	S	W	E	L	L	,	S	.	,	E	N	V	D	I	R	6	0	1	6	3	6	1	2	3	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**A. Name of Installation's Legal Owner**

C	E	D	A	R		C	H	E	M	I	C	A	L		C	O	R	P	.			P
---	---	---	---	---	--	---	---	---	---	---	---	---	---	--	---	---	---	---	---	--	--	---

**VI. Type of Regulated Waste Activity (Mark "X" in the appropriate boxes. Refer to instructions.)**

A. Hazardous Waste Activity		B. Used Oil Fuel Activities	
<input checked="" type="checkbox"/> 1a. Generator	<input type="checkbox"/> 1b. Less than 1,000 kg/mo.	<input type="checkbox"/> 6. Off-Specification Used Oil Fuel <i>(enter 'X' and mark appropriate boxes below)</i>	
<input type="checkbox"/> 2. Transporter		<input type="checkbox"/> a. Generator Marketing to Burner	
<input type="checkbox"/> 3. Treater/Storer/Disposer		<input type="checkbox"/> b. Other Marketer	
<input type="checkbox"/> 4. Underground Injection		<input type="checkbox"/> c. Burner	
<input type="checkbox"/> 5. Market or Burn Hazardous Waste Fuel <i>(enter 'X' and mark appropriate boxes below)</i>		<input type="checkbox"/> 7. Specification Used Oil Fuel Marketer <i>(or On site Burner)</i> Who First Claims the Oil Meets the Specification	
<input type="checkbox"/> a. Generator Marketing to Burner			
<input type="checkbox"/> b. Other Marketer			
<input type="checkbox"/> c. Burner			

**VII. Waste Fuel Burning: Type of Combustion Device** (enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)

☐ A. Utility Boiler      ☐ B. Industrial Boiler      ☐ C. Industrial Furnace

**VIII. Mode of Transportation** (transporters only — enter 'X' in the appropriate box(es))

☐ A. Air    ☐ B. Rail    ☐ C. Highway    ☐ D. Water    ☐ E. Other (specify) \_\_\_\_\_

### IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

☐ A. First Notification     ☒ B. Subsequent Notification (complete item C)

C. Installation's EPA ID Number											
M	S	D	9	9	0	7	1	4	0	8	1

**A. Hazardous Wastes from Nonspecific Sources.** Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

[illegible]

31			
P	0	2	0
37			
43			

32			
P	1	2	3
38			
44			

33			
39			
45			

34			
40			
46			

35			
41			
47			

36			
42			
48			

[illegible]

☐ 1. Ignitable  
(D001)

☒ 2. Corrosive  
(D002)

☐ 3. Reactive  
(0003)

☒ 4. Toxic  
(0000)

***I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.***

Frank L. Ahlborn

Fred L. Ahlers, Plant Manager

11/7/89

Notification of Hazardous Waste Activity  
Addendum

Facility Name Cedar Chemical Corp.  
City Vicksburg, MS

INSTRUCTIONS:

MARK ALL THAT APPLY

A. Hazardous Waste Activity

1. Do you generate less than 100 kg/mo (220 lb/mo)? Yes ☐ No ☒

B. Used Oil Fuel Activities

7. Specification Used Oil Fuel Marketer (or On-Site Burner) Who First Claims the Oil Meets the Specification

☐ Marketer  
☐ On-Site Burner

C. Recycling Activities

☐ On-Site Solvent Recovery/Recycling  
☐ Lead-Acid Battery Recycling  
☐ Precious Metals Recycling (Silver from x-ray and photographic solutions)  
☐ Other; specify \_\_\_\_\_

D. Hazardous Waste Storage

☐ Drums  
☐ Tanks  
☐ Impoundments  
☐ Other; specify \_\_\_\_\_

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 626-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 285

November 7, 1989

Mr. Toby Cook  
Environmental Engineer  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

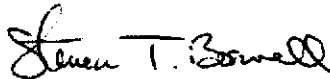
Subject: Cedar Chemical Corp.  
Notification of Hazardous Waste Activity

Dear Mr. Cook:

As you requested, please find enclosed an amended Notification of Hazardous Waste Activity naming Cedar Chemical Corporation as the owner of the Vicksburg Chemical Division installation. The Notification covers the wastes generated at this time. If new wastes are generated, the Notification will be further amended to reflect those wastes.

If there are questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

bc: Mr. Ahlers  
Mr. Madsen

RECEIVED

NOV 08 1989

DEPT. OF NATURAL RESOURCE  
BUREAU OF POLLUTION CONTROL

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 626-1231

CERTIFIED MAIL  
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November 7, 1989

Mr. Toby Cook  
Environmental Engineer  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

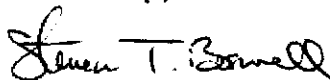
Subject: Cedar Chemical Corp.  
Notification of Hazardous Waste Activity

Dear Mr. Cook:

As you requested, please find enclosed an amended Notification of Hazardous Waste Activity naming Cedar Chemical Corporation as the owner of the Vicksburg Chemical Division installation. The Notification covers the wastes generated at this time. If new wastes are generated, the Notification will be further amended to reflect those wastes.

If there are questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

cc: Mr. Ahlers  
Mr. Madsen

**RECEIVED**

NOV 08 1989

DEPT. OF NATURAL RESOURCE  
BUREAU OF POLLUTION CONTROL



Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law (*Section 3010 of the Resource Conservation and Recovery Act*).



## Notification of Hazardous Waste Activity

### Comments

[illegible]

Installation's EPA ID Number														Approved		Date Received (yr. mo. day)			
C	M	S	D	9	9	0	7	1	4	0	8	1	I/A	C					
F																			

[illegible]

## Street or P.O. Box

[illegible]

City or Town															State	ZIP Code						
C	V	I	C	K	S	B	U	R	G							M	S	3	9	1	8	1

**Street or Route Number**[illegible]

City or Town															State		ZIP Code						
C 8	V	I	C	K	S	B	U	R	G								M	S	3	9	1	8	0

## Name and Title (last, first, and job title)

2	B	O	S	W	E	L	L	,	S	.	,	E	N	V	D	I	R	6	0	1	6	3	6	1	2	3	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**A. Name of Installation's Legal Owner**

[illegible]

### A. Hazardous Waste Activity

☒ 1a. Generator ☐ 1b. Less than 1,000 kg/mo.

☐ 2. Transporter

☐ 3. Treater/Storer/Disposer

☐ 4. Underground Injection

☐ 5. Market or Burn Hazardous Waste Fuel  
(enter "X" and mark appropriate boxes below)

☐ a. Generator Marketing to Burner

☐ b. Other Marketer

☐ c. Burner

### B. Used Oil Fuel Activities

☐ 6. Off-Specification Used Oil Fuel  
(enter 'X' and mark appropriate boxes below)

☐ a. Generator Marketing to Burner

☐ b. Other Marketer

☐ c. Burner

☐ 7. Specification Used Oil Fuel Marketer (or On site Burner)  
Who First Claims the Oil Meets the Specification

**VII. Waste Fuel Burning: Type of Combustion Device** (enter "X" in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)

☐ A. Utility Boiler      ☐ B. Industrial Boiler      ☐ C. Industrial Furnace

**VIII. Mode of Transportation (transporters only — enter 'X' in the appropriate box(es))**

☐ A. Air    ☐ B. Rail    ☐ C. Highway    ☐ D. Water    ☐ E. Other (specify) \_\_\_\_\_

### **IX. First or Subsequent Notification**

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

☐ A. First Notification      ☒ B. Subsequent Notification (complete item C)

C. Installation's EPA ID Number											
M	S	D	9	9	0	7	1	4	0	8	1

ID — For Official Use Only													
C												T/A	C
W													1

# X. Description of Hazardous Wastes (continued from front)

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
K 0 3 1					
19	20	21	22	23	24
25	26	27	28	29	30

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
P 0 2 0	P 1 2 3				
37	38	39	40	41	42
43	44	45	46	47	48

D. Listed Infectious Wastes. Enter the four-digit number from 40 CFR Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.21 — 261.24)

☐ 1. Ignitable  
(D001)

☒ 2. Corrosive  
(D002)

☐ 3. Reactive  
(D003)

☒ 4. Toxic  
(D000)

## XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

*Fred L. Ahlers*

Name and Official Title (type or print)

Fred L. Ahlers, Plant Manager

Date Signed

11/7/89

Notification of Hazardous Waste Activity  
Addendum

Facility Name Cedar Chemical Corp.  
City Vicksburg, MS

INSTRUCTIONS:

MARK ALL THAT APPLY

A. Hazardous Waste Activity

1. Do you generate less than 100 kg/mo (220 lb/mo)? Yes ☐ No ☒

B. Used Oil Fuel Activities

7. Specification Used Oil Fuel Marketer (or On-Site Burner) Who First Claims the Oil Meets the Specification

☐ Marketer  
☐ On-Site Burner

C. Recycling Activities

☐ On-Site Solvent Recovery/Recycling  
☐ Lead-Acid Battery Recycling  
☐ Precious Metals Recycling (Silver from x-ray and photographic solutions)  
☐ Other; specify \_\_\_\_\_

D. Hazardous Waste Storage

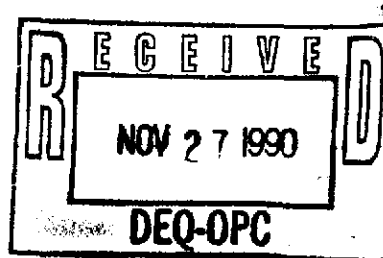
☐ Drums  
☐ Tanks  
☐ Impoundments  
☐ Other; specify \_\_\_\_\_

*Kevin*

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231



Mr. Bill Stewart  
Hazardous Waste Division  
Bureau of Pollution Control  
P.O. Box 10385  
Jackson, MS 39289

November 26, 1990

Subject: Cedar Chemical 1989 Hazardous Waste Report

Dear Mr. Stewart:

Please find enclosed a corrected Form PS, Page 11 of 13, for the Cedar Chemical 1989 Hazardous Waste Report. This correction was requested by Mr. Don Christy (copy attached).

The 456,000 gallons shown as RCRA wastewater should not have been described as RCRA waste as it is subject to the "de-minimus" exclusion. Cedar's NPDES permit does cover the discharge of dinoseb with an effluent limitation.

Thank you for your attention and for bringing this error to our attention.

STB: pc

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

CEDAR CHEMICAL CORP.

EPA ID NO.

M15D191901711401811



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
PS

WASTE TREATMENT, DISPOSAL,  
OR RECYCLING PROCESS  
SYSTEMS

**INSTRUCTIONS:** Read the detailed instructions beginning on page 30 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec.  
I

A. Waste treatment, disposal or recycling system description  
Instruction Page 36

WASTEWATER TREATED BY CALGON ABSORPTION UNITS

B. System type  
Page 36

M1082

C. Regulatory status  
Page 36

02

D. Operational status  
Page 37

01

E. Unit types  
Page 37

01

Sec.  
II

A. 1989 Influent quantity  
Instruction Page 38

UOM

Density

Total 11160000000

5

8.34

RCRA 0

☒ 1 lbs/gal ☐ 2 sg

B. Maximum operational capacity  
Page 39

Total 315360000

RCRA 4015000

C. 1989 liquid effluent quantity  
Page 40

UOM

Density

Total 11160000000

5

8.34

RCRA 0

☒ 1 lbs/gal ☐ 2 sg

D. 1989 solid/sludge residual quantity  
Page 41

UOM

Density

Total 152980

RCRA 152980

☐ 1 lbs/gal ☐ 2 sg

E. Limitations on capacity  
Page 41

1. 02 2. 3. 0

F. Commercial availability code  
Page 41

1

G. Percent capacity commercially available  
Page 42

000 %

Sec.  
III

A. Planned change in maximum operational capacity  
Instruction Page 42

- ☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. New maximum operational capacity  
Page 42

UOM

Total 0

RCRA 0

C. Planned year of change  
Page 43

19

D. Future commercial availability code  
Page 43

0

E. Percent future capacity commercially available  
Page 43

0 %

Comments:



STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

November 9, 1990

Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3, Rifle Range Road  
Vicksburg, MS 39180

NOV. 15 1990

Dear Mr. Boswell:

Re: 1989 EPA Hazardous Waste  
Report for MSD990714081

The State of Mississippi is in the process of computerizing the information submitted by hazardous waste generators on the 1989 Hazardous Waste Report. In reviewing the report for your facility, we have noted a possible error on "Form PS", page 11 of 13. Section II., Box C shows that your facility is discharging 456,000 gallons of RCRA-regulated waste water from your carbon adsorption units. Is this waste water still regulated as a hazardous waste? If this waste water is considered "treated" and is no longer considered "hazardous", then the amount of RCRA-regulated waste water being discharged is "0". Enclosed you will find a blank copy of "Form PS" for any revisions. Please revise the form, if needed and return the original within ten (10) days to Mr. Bill Stewart, Hazardous Waste Division, Office of Pollution Control, P.O. Box 10385, Jackson, MS 39289. I am also requesting that a copy of any revised form be sent to me at P.O. Box 10385, Jackson, MS 39289.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Don Christy".

Don Christy  
Environmental Scientist

Enclosure

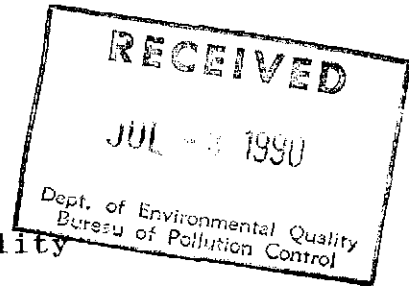
# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 677 981 853

Mr. Jerry Banks  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204



June 29, 1990

Re: Cedar Chemical Corporation  
Biennial Hazardous Waste Report

Dear Mr. Banks:

As requested by Mr. Don Christy, enclosed is a Form GM for contaminated rainfall collected and carbon treated at the Vicksburg facility. Please add this form as page 9A of 13 to our Biennial Report for the year 1989.

If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen





BEFORE COPYING FORM. ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO. M S D 9 9 0 7 1 4 0 8 1



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
IC

IDENTIFICATION AND  
CERTIFICATION

**INSTRUCTIONS:** Read the detailed instructions beginning on page 7 of the 1989 Hazardous Waste Report booklet before completing this form.

**SEC. I** Site name and location address. Complete items A through H. Check the box ☒ in items A, B, D, E, F, G, and H if same as label; if different, enter corrections. If label is absent, enter information. Instruction page 7.

A. EPA ID No. ☒ Same as label or M S D 9 9 0 7 1 4 0 8 1

B. Site/company name  
Same as label ☒ or CEDAR CHEMICAL CO.

C. Has the site name associated with this EPA ID changed since 1987? ☐ 1 Yes ☒ 2 No

D. Street name and number. If not applicable, enter industrial park, building name or other physical location description.  
Same as label ☐ or P.O. BOX 3, RIFLE RANGE ROAD

E. City, town, village, etc.  
Same as label ☐ or VICKSBURG

F. County  
WARREN

G. State  
Same as label ☐ or (M.S.)

H. Zip Code  
Same as label ☐ or 3 9 1 8 0 -

**SEC. II** Mailing address of site. Instruction page 7.

A. Is the mailing address the same as the location address? ☒ 1 Yes (SKIP TO SEC. III) ☐ 2 No (COMPLETE SEC. II)

B. Number and street name of mailing address

C. City, town, village, etc.

D. State

E. Zip Code

**SEC. III** Name, title, and telephone number of the person who should be contacted if questions arise regarding this report. Instruction page 7.

A. Please print: Last name

First name

M.I.

B. Title

DIRECTOR OF  
ENVIROMENTAL  
AFFAIRS

C. Telephone

6 0 1 6 3 6 - 1 2 3 1  
Extension 2 1 9

BOSWELL

STEVEN

T.

**SEC. IV** Enter the Standard Industrial Classification (SIC) Code that describes the principal products, group of products, produced or distributed, or the services rendered at the site's physical location. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. Instruction page 8.

A. 2 8 1 2

B. 2 8 1 9

C. 2 8 6 9

D. 2 8 7 3

**SEC. V** I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Number of form pages submitted

Form IC 2

Form GM 7

Form WR 1

Form PS 1

B. Please print: Last name

Ahlers

First name

Fred

M.I.

L.

C. Title

Plant Manager

D. Signature

*Ahlers*

E. Date of signature

02 22 90  
MO. DAY YR.

Page 1 of 13



BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO. M S D 9 9 0 7 1 4 0 8 1



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec. I A. Waste description Hazardous waste containing dirt, crushed cans, trash, and tank bottoms contaminated with Dinoseb mostly created by redrumming of product.

B. EPA hazardous waste code  
Page 15

P 0 2 0 I I N I A I I N I A I I N I A

C. State hazardous waste code  
Page 16

D. SIC code  
Page 16

2 8 7 9

E. Source code  
Page 18

A 6 9

F. Form code  
Page 18

B 3 0 8

G. Origin  
Page 16 Code 3

System type M 1 1 1 1

H. TRI constituent  
Page 17

2

I. CAS numbers  
Page 17

1.                      -                      2.                      -                       
3.                      -                      4.                      -                      5.                      -                     

Sec. II A. Quantity generated in 1988  
Instruction Page 17

1 1 0 5 9 8 1 1 0

B. Quantity generated in 1988  
Page 17

2 6 8 1 7 1 0

C. UOM  
Page 18

1

D. Density  
Page 18

                                           
☐ 1 lbs/gal ☐ 2 ag

E. Was this waste treated, disposed or recycled on site or discharged to a sewer/POTW?  
Page 18

☐ 1 Yes (CONTINUE TO SYSTEM 1)  
☒ 2 No (SKIP TO SEC. III)

SYSTEM 1

System type  
Page 18

M

Quantity treated, disposed or recycled in 1988  
Page 18

SYSTEM 2

System type  
Page 18

M

Quantity treated, disposed or recycled in 1988  
Page 18

Sec. III A. Was this waste shipped off site?  
Instruction Page 19

☒ 1 Yes (CONTINUE TO BOX B)  
☐ 2 No (SKIP TO SEC. IV)

Site 1 B. EPA ID No. of facility to which waste was shipped  
Instruction Page 19

L A D 0 0 0 6 1 8 2 9 8

C. System type  
Page 19

M 1 3 2

D. Total quantity shipped in 1988  
Page 19

2 6 8 1 7 1 0

Site 2                     

M

Sec. IV A. Waste minimization results in 1989  
Instruction Page 20

☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. Activity  
Page 21

W W  
W W

C. Other effects  
Page 21

☐ 1 Yes  
☐ 2 No

D. Quantity recycled in 1989 due to new activities  
Page 21

E. Activity/Production Index  
Page 21

F. Source Reduction Quantity  
Page 22

Comments: Form GM Sec. I, Box E: Discarding of crushed containers due to redrumming.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO.

MSD990714081



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec.  
I

A. Waste description  
Instruction Page 15

Spent carbon used in Calgon units from adsorption of Dinoseb wastewater

B. EPA hazardous waste code  
Page 15

P020 N A N A N A

C. State hazardous waste code  
Page 16

D. SIC code  
Page 16

2879

E. Source code  
Page 16

A75

F. Form code  
Page 16

B102

G. Origin  
Page 16

Code 1

System type M N A

H. TRI constituent  
Page 17

2

I. CAS numbers  
Page 17

1. - 2. -

3. - 4. - 5. -

Sec.  
II

A. Quantity generated in 1988  
Instruction Page 17

12358410

B. Quantity generated in 1989  
Page 17

1184310

C. UOM  
Page 18

1

D. Density  
Page 18

1 lbs./gal 2 sg

E. Was this waste treated, disposed or recycled on site  
or discharged to a sewer/POTW?  
Page 18

1 Yes (CONTINUE TO SYSTEM 1)  
2 No (SKIP TO SEC. III)

SYSTEM 1

System type  
Page 18

M

Quantity treated, disposed or recycled in 1989  
Page 18

SYSTEM 2

System type  
Page 18

M

Quantity treated, disposed or recycled in 1989  
Page 18

Sec.  
III

A. Was this waste shipped off site?  
Instruction Page 19

1 Yes (CONTINUE TO BOX B)  
2 No (SKIP TO SEC. IV)

Site  
1

B. EPA ID No. of facility to which waste was shipped  
Instruction Page 19

PAD004319810

C. System type  
Page 19

M1032

D. Total quantity shipped in 1989  
Page 19

1184310

Site  
2

N A

M

Sec.  
IV

A. Waste minimization results in 1989  
Instruction Page 20

1 Yes (CONTINUE TO BOX B)  
2 No (THIS FORM IS COMPLETE)

B. Activity  
Page 21

W

W

C. Other effects  
Page 21

1 Yes

2 No

D. Quantity recycled in 1989 due to new activities  
Page 21

E. Activity/Production Index  
Page 21

F. Source Reduction Quantity  
Page 22

Comments: Form GM, Sec.III, Site 1, Box C: Activated carbon regeneration

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO. MSDP990714081



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec. I	A. Waste description Instruction Page 15 MSMA waste water generated in cleaning out MSMA Plant.			
B. EPA hazardous waste code Page 15 <u>D004</u> <u>K031</u> <u>NA</u> <u>NA</u>		C. State hazardous waste code Page 16 _____		
D. SIC code Page 16 <u>2869</u>	E. Source code Page 16 <u>A09</u>	F. Form code Page 16 <u>B102</u>	G. Origin Page 16 Code <u>7</u> System type <u>MI</u> <u>NA</u>	
H. TRI constituent Page 17 <u>2</u>	I. CAS numbers Page 17 1. _____ 2. _____ 3. _____ 4. _____ 5. _____			

Sec. II	A. Quantity generated in 1988 Instruction Page 17 <u>1511016</u>	B. Quantity generated in 1989 Page 17 <u>1553214</u>	C. UCM Page 18 <u>5</u>	D. Density Page 18 <u>8.72</u> <input checked="" type="checkbox"/> 1 lbs/gal <input type="checkbox"/> 2 sg	E. Was this waste treated, disposed or recycled on site or discharged to a sewer/POTW? Page 18 <input type="checkbox"/> 1 Yes (CONTINUE TO SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC. III)
SYSTEM 1 System type Page 18 <u>MI</u>		Quantity treated, disposed or recycled in 1989 Page 18 _____			
SYSTEM 2 System type Page 18 <u>MI</u>		Quantity treated, disposed or recycled in 1989 Page 18 _____			

Sec. III	A. Was this waste shipped off site? Instruction Page 19 <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (SKIP TO SEC. IV)		
Site 1	B. EPA ID No. of facility to which waste was shipped Instruction Page 19 <u>LAD0000717815114</u>	C. System type Page 19 <u>MI1314</u>	D. Total quantity shipped in 1989 Page 19 <u>1553214</u>
Site 2	_____	<u>MI</u>	_____

Sec. IV	A. Waste minimization results in 1989 Instruction Page 20 <input type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input checked="" type="checkbox"/> 2 No (THIS FORM IS COMPLETE)				
B. Activity Page 21 <u>W</u> <u>W</u>	C. Other effects Page 21 <input type="checkbox"/> 1 Yes <input checked="" type="checkbox"/> 2 No	D. Quantity recycled in 1989 due to new activities Page 21 _____	E. Activity/Production Index Page 21 _____	F. Source Reduction Quantity Page 22 _____	

Comments:

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OR ENTER:

SITE NAME

CEDAR CHEMICAL CO.

EPA ID NO.

M I S D 9 9 0 7 1 4 0 8 1



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1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

**INSTRUCTIONS:** Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec.  
I

A. Waste description  
Instruction Page 15

Floor sweepings contaminated with MSMA

B. EPA hazardous waste code  
Page 15

D 0 0 4 K 0 3 1 N A N A

C. State hazardous waste code  
Page 16

D. SIC code  
Page 18

2 8 6 9

E. Source code  
Page 16

A 8 2

F. Form code  
Page 16

B 3 0 1

G. Origin  
Page 16 Code 1

System type M I N A

H. TRI constituent  
Page 17

2

I. CAS numbers  
Page 17

1. - 2. - 3. - 4. - 5. -

Sec.  
II

A. Quantity generated in 1988  
Instruction Page 17

0

B. Quantity generated in 1989  
Page 17

6 0 3 0

C. UOM  
Page 18

1

D. Density  
Page 18

1 lb/gal 2 sg

E. Was this waste treated, disposed or recycled on site  
or discharged to a sewer/POTW?  
Page 18

☐ 1 Yes (CONTINUE TO SYSTEM 1)  
☒ 2 No (SKIP TO SEC. III)

SYSTEM 1

System type  
Page 18

M

Quantity treated, disposed or recycled in 1988  
Page 18

SYSTEM 2

System type  
Page 18

M

Quantity treated, disposed or recycled in 1988  
Page 18

Sec.  
III

A. Was this waste shipped off site?  
Instruction Page 19

☒ 1 Yes (CONTINUE TO BOX B)  
☐ 2 No (SKIP TO SEC. IV)

Site  
1

B. EPA ID No. of facility to which waste was shipped  
Instruction Page 19

A F D 0 0 0 6 2 2 4 6 4

C. System type  
Page 19

M 1 3 2

D. Total quantity shipped in 1988  
Page 19

6 0 3 0

Site  
2

N A

M

Sec.  
IV

A. Waste minimization results in 1989  
Instruction Page 20

☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. Activity  
Page 21

W W  
W W

C. Other effects  
Page 21

☐ 1 Yes  
☐ 2 No

D. Quantity recycled in 1989 due to new activities  
Page 21

E. Activity/Production Index  
Page 21

F. Source Reduction Quantity  
Page 22

Comments:

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1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

**INSTRUCTIONS:** Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec.  
I

A. Waste description  
Instruction Page 15

Aluminum and Stainless Steel contaminated with Toxaphene  
created when dismantling storage tanks.

B. EPA hazardous waste code  
Page 15

P123 N A N A N A

C. State hazardous waste code  
Page 16

D. SIC code  
Page 16

2869

E. Source code  
Page 16

A1516

F. Form code  
Page 16

18401

G. Origin  
Page 16 Code 1

System type MI INIA

H. TRI constituent  
Page 17

2

I. CAS numbers  
Page 17

1. - - - - - 2. - - - - -  
3. - - - - - 4. - - - - - 5. - - - - -

Sec.  
II

A. Quantity generated in 1988  
Instruction Page 17

N A

B. Quantity generated in 1989  
Page 17

56720

C. UOM  
Page 18

1

D. Density  
Page 18

☐ 1 lbs/gal ☐ 2 sg

E. Was this waste treated, disposed or recycled on site  
or discharged to a sewer/POTW?  
Page 18

☐ 1 Yes (CONTINUE TO SYSTEM 1)  
☒ 2 No (SKIP TO SEC. III)

SYSTEM 1

System type  
Page 18

MI

Quantity treated, disposed or recycled in 1989  
Page 18

SYSTEM 2

System type  
Page 18

MI

Quantity treated, disposed or recycled in 1989  
Page 18

Sec.  
III

A. Was this waste shipped off site?  
Instruction Page 19

☒ 1 Yes (CONTINUE TO BOX B)  
☐ 2 No (SKIP TO SEC. IV)

Site  
1

B. EPA ID No. of facility to which waste was shipped  
Instruction Page 19

LAD000777201

C. System type  
Page 19

MI1312

D. Total quantity shipped in 1989  
Page 19

56720

Site  
2

MI

Sec.  
IV

A. Waste minimization results in 1989  
Instruction Page 20

☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. Activity  
Page 21

W W  
W W

C. Other effects  
Page 21

☐ 1 Yes  
☐ 2 No

D. Quantity recycled in 1989 due to new activities  
Page 21

E. Activity/Production Index  
Page 21

F. Source Reduction Quantity  
Page 22

Comments:

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CEDAR CHEMICAL CO.

EPA ID NO.

M S D 9 9 0 7 1 4 0 8 1



U.S. ENVIRONMENTAL  
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1989 Hazardous Waste Report

FORM  
GM

WASTE GENERATION AND  
MANAGEMENT

**INSTRUCTIONS:** Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec. I A. Waste description Instruction Page 15 Toxaphene waste created when started dismantling Toxaphene storage tanks and lines.

B. EPA hazardous waste code Page 15

P 1 2 3 N A N A N A

C. State hazardous waste code Page 16

D. SIC code Page 16

2 8 6 9

E. Source code Page 16

A 5 6

F. Form code Page 16

B 2 1 9

G. Origin Page 16 Code

1

System type M I N A

H. TFI constituent Page 17

2

I. CAS numbers Page 17

1. - 2. -

3. - 4. - 5. -

Sec. II

A. Quantity generated in 1989 Instruction Page 17

N A

B. Quantity generated in 1989 Page 17

5 5 0

C. UOM Page 18

5

D. Density Page 18

1 3 . 0 0

☒ 1 lbs/gal ☐ 2 sg

E. Was this waste treated, disposed or recycled on site or discharged to a sewer/POTW? Page 18

☐ 1 Yes (CONTINUE TO SYSTEM 1)

☒ 2 No (SKIP TO SEC. III)

SYSTEM 1

System type Page 18

M I

Quantity treated, disposed or recycled in 1989 Page 18

SYSTEM 2

System type Page 18

M I

Quantity treated, disposed or recycled in 1989 Page 18

Sec. III

A. Was this waste shipped off site? Instruction Page 18

☒ 1 Yes (CONTINUE TO BOX B)  
☐ 2 No (SKIP TO SEC. IV)

Site 1

B. EPA ID No. of facility to which waste was shipped Instruction Page 19

I L D 0 9 8 6 4 2 4 2 4

C. System type Page 19

M I 0 4 1

D. Total quantity shipped in 1989 Page 19

5 5 0

Site 2

N A

M I

Sec. IV

A. Waste minimization results in 1989 Instruction Page 20

☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. Activity Page 21

W I W I

W I W I

C. Other effects Page 21

☐ 1 Yes

☐ 2 No

D. Quantity recycled in 1989 due to new activities Page 21

E. Activity/Production Index Page 21

F. Source Reduction Quantity Page 22

Comments:

Form GM, Sec 1 Box F: Halogenated liquid, waste Toxaphene



EPA ID NO. M S D 9 9 0 7 1 4 0 8 1



## 1989 Hazardous Waste Report

**FORM**  
**GM**

## WASTE GENERATION AND MANAGEMENT

**INSTRUCTIONS:** Read the detailed instructions beginning on page 14 of the 1989 Hazardous Waste Report booklet before completing this form.

|                                        |                                                                              |                                                                              |                                          |                    |  |  |  |
|----------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------|--------------------|--|--|--|
| Sec.<br>I                              | A. Waste description<br>Instruction Page 15                                  | Sodium Arsenite wash water created by washing out and cleaning storage tank. |                                          |                    |  |  |  |
| B. EPA hazardous waste code<br>Page 15 |                                                                              |                                                                              | C. State hazardous waste code<br>Page 18 |                    |  |  |  |
| D 0 0 4    NA    NA    NA              |                                                                              |                                                                              |                                          |                    |  |  |  |
| D. SIC code<br>Page 16                 | E. Source code<br>Page 16                                                    | F. Form code<br>Page 16                                                      | G. Origin<br>Page 16                     | Code               |  |  |  |
| 2 8 6 9                                | A 0 9                                                                        | B 1 0 6                                                                      |                                          | System type M I NA |  |  |  |
| H. TRI constituent<br>Page 17          | I. CAS numbers<br>Page 17                                                    |                                                                              |                                          |                    |  |  |  |
| 2                                      | 1. - - - - -<br>2. - - - - -<br>3. - - - - -<br>4. - - - - -<br>5. - - - - - |                                                                              |                                          |                    |  |  |  |

|                |                                                                                                                                                                                                          |                                                                                                                                                                                                    |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                       |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sec. II</b> | <b>A. Quantity generated in 1988</b><br>Instruction Page 17<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>N A</span> </div> | <b>B. Quantity generated in 1989</b><br>Page 17<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>210151013</span> </div> | <b>C. UOM</b><br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>5</span> </div> | <b>D. Density</b><br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>9.27</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <input checked="" type="checkbox"/> 1 lb/gal           <input type="checkbox"/> 2 sg         </div> | <b>E. Was this waste treated, disposed or recycled on site or discharged to a sewer/POTW?</b><br>Page 18<br><div style="display: flex; justify-content: space-between; margin-top: 10px;"> <input type="checkbox"/> 1 Yes (CONTINUE TO SYSTEM 1)           <input checked="" type="checkbox"/> 2 No (SKIP TO SEC. III)         </div> |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                           |                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SYSTEM 1</b><br><br>System type<br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>1M</span> </div> | <b>SYSTEM 2</b><br><br>System type<br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span>1M</span> </div> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                     |                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quantity treated, disposed or recycled in 1988<br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span></span> </div> | Quantity treated, disposed or recycled in 1989<br>Page 18<br><div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> <span></span> <span></span> </div> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                      |                                                                                                               |                                             |                                                                                                                  |  |  |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Sec. III</b><br><b>A. Was this waste shipped off site?</b><br>Instruction Page 19 |                                                                                                               |                                             | <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B)<br><input type="checkbox"/> 2 No (SKIP TO SEC. IV) |  |  |
| <b>Site 1</b>                                                                        | <b>B. EPA ID No. of facility to which waste was shipped</b><br>Instruction Page 19<br>I A D 0 0 0 7 7 8 5 1 4 | <b>C. System type</b><br>Page 19<br>M 1 3 4 | <b>D. Total quantity shipped in 1989</b><br>Page 19<br>1 1 1 1 2 0 5 0 3                                         |  |  |
| <b>Site 2</b>                                                                        | N A                                                                                                           | M                                           |                                                                                                                  |  |  |

|                                                          |                                                                             |                                                               |                                         |                                                 |  |  |  |                                                                                                                        |  |  |  |  |  |
|----------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------|-------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Sec.<br>IV                                               | A. Waste minimization results in 1988<br><small>Instruction Page 20</small> |                                                               |                                         |                                                 |  |  |  | <input type="checkbox"/> 1 Yes (CONTINUE TO BOX B)<br><input checked="" type="checkbox"/> 2 No (THIS FORM IS COMPLETE) |  |  |  |  |  |
| B. Activity<br>Page 21                                   | C. Other effects<br>Page 21                                                 | D. Quantity recycled in 1988 due to new activities<br>Page 21 | E. Activity/Production Index<br>Page 21 | F. Source Reduction Quantity<br>Page 22         |  |  |  |                                                                                                                        |  |  |  |  |  |
| [W] [ ] [ ]    [W] [ ] [ ]<br>[W] [ ] [ ]    [W] [ ] [ ] | <input type="checkbox"/> 1 Yes<br><br><input type="checkbox"/> 2 No         | [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]               | [ ] [ ] . [ ]                           | [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] |  |  |  |                                                                                                                        |  |  |  |  |  |

Page 9 of 13

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M S D 9 9 0 7 1 4 0 8 1



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
WR

WASTE RECEIVED FROM OFF SITE

**INSTRUCTIONS:** Read the detailed instructions beginning on page 27 of the 1989 Hazardous Waste Report booklet before completing this form.

|                                                                                                                                             |                                                                                                                                             |                                                            |                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste<br>1                                                                                                                                  | A. Description of hazardous waste<br>Instruction Page 27                                                                                    | B. EPA hazardous waste code<br>Page 28                     | C. State hazardous waste code<br>Page 28                                                                                                                |
|                                                                                                                                             | Received no Hazardous<br>Waste from off-site.                                                                                               | <u>      </u> <u>      </u><br><u>      </u> <u>      </u> | <u>      </u> <u>      </u><br><u>      </u> <u>      </u>                                                                                              |
| D. Off-site source EPA ID No.<br>Page 28                                                                                                    | E. Quantity received in 1989<br>Page 28                                                                                                     | F. UOM<br>Page 28                                          | G. Density<br>Page 28                                                                                                                                   |
| <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u>                                              | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><input type="checkbox"/> 1 lbs/gal <input type="checkbox"/> 2 sg |
| H. Waste form code<br>Page 29                                                                                                               | I. System type<br>Page 29                                                                                                                   |                                                            |                                                                                                                                                         |
| <u>B</u> <u>      </u> <u>      </u> <u>      </u>                                                                                          | <u>M</u> <u>      </u> <u>      </u> <u>      </u>                                                                                          |                                                            |                                                                                                                                                         |

|                                                                                                                                                                                                              |                                                                                                                                             |                                                                                                                                                                            |                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste<br>2                                                                                                                                                                                                   | A. Description of hazardous waste<br>Instruction Page 27                                                                                    | B. EPA hazardous waste code<br>Page 28                                                                                                                                     | C. State hazardous waste code<br>Page 28                                                                                                                                   |
|                                                                                                                                                                                                              |                                                                                                                                             | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> |
| D. Off-site source EPA ID No.<br>Page 28                                                                                                                                                                     | E. Quantity received in 1989<br>Page 28                                                                                                     | F. UOM<br>Page 28                                                                                                                                                          | G. Density<br>Page 28                                                                                                                                                      |
| <input type="checkbox"/> Check if ID same as in Waste 1<br>or -> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u>                                                                                                                                                              | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><input type="checkbox"/> 1 lbs/gal <input type="checkbox"/> 2 sg                    |
| H. Waste form code<br>Page 29                                                                                                                                                                                | I. System type<br>Page 29                                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                            |
| <u>B</u> <u>      </u> <u>      </u> <u>      </u>                                                                                                                                                           | <u>M</u> <u>      </u> <u>      </u> <u>      </u>                                                                                          |                                                                                                                                                                            |                                                                                                                                                                            |

|                                                                                                                                                                                                              |                                                                                                                                             |                                                                                                                                                                            |                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste<br>3                                                                                                                                                                                                   | A. Description of hazardous waste<br>Instruction Page 27                                                                                    | B. EPA hazardous waste code<br>Page 28                                                                                                                                     | C. State hazardous waste code<br>Page 28                                                                                                                                   |
|                                                                                                                                                                                                              |                                                                                                                                             | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> |
| D. Off-site source EPA ID No.<br>Page 28                                                                                                                                                                     | E. Quantity received in 1989<br>Page 28                                                                                                     | F. UOM<br>Page 28                                                                                                                                                          | G. Density<br>Page 28                                                                                                                                                      |
| <input type="checkbox"/> Check if ID same as in Waste 2<br>or -> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> | <u>      </u>                                                                                                                                                              | <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u><br><input type="checkbox"/> 1 lbs/gal <input type="checkbox"/> 2 sg                    |
| H. Waste form code<br>Page 29                                                                                                                                                                                | I. System type<br>Page 29                                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                            |
| <u>B</u> <u>      </u> <u>      </u> <u>      </u>                                                                                                                                                           | <u>M</u> <u>      </u> <u>      </u> <u>      </u>                                                                                          |                                                                                                                                                                            |                                                                                                                                                                            |

Comments:

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SITE NAME

CEDAR CHEMICAL CO.

EPA ID NO.

MSD999714981



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

FORM  
PS

WASTE TREATMENT, DISPOSAL,  
OR RECYCLING PROCESS  
SYSTEMS

INSTRUCTIONS: Read the detailed instructions beginning on page 30 of the 1989 Hazardous Waste Report booklet before completing this form.

Sec.  
I

A. Waste treatment, disposal or recycling system description  
Instruction Page 38

Wastewater treated by Calgon carbon adsorption units

B. System type  
Page 36

MI0812

C. Regulatory status  
Page 36

02

D. Operational status  
Page 37

01

E. Unit types  
Page 37

01

Sec.  
II

A. 1989 influent quantity  
Instruction Page 38

UOM

Density

Total 116000000

5

8.34

RCRA 4560000

☒ 1 lbs/gal ☐ 2 sg

B. Maximum operational capacity  
Page 39

Total 315360000

RCRA 40150000

C. 1989 liquid effluent quantity  
Page 40

UOM

Density

Total 116000000

5

8.34

RCRA 4560000

☒ 1 lbs/gal ☐ 2 sg

D. 1989 solid/sludge residual quantity  
Page 41

UOM

Density

Total 152980

1

RCRA 152980

☐ 1 lbs/gal ☐ 2 sg

E. Limitations on capacity  
Page 41

1. 09 2. 3.

F. Commercial availability code  
Page 41

1

G. Percent capacity commercially available  
Page 42

000 %

Sec.  
III

A. Planned change in maximum operational capacity  
Instruction Page 42

- ☐ 1 Yes (CONTINUE TO BOX B)  
☒ 2 No (THIS FORM IS COMPLETE)

B. New maximum operational capacity  
Page 42

UOM

Total

RCRA

C. Planned year of change  
Page 43

119

D. Future commercial availability code  
Page 43

E. Percent future capacity commercially available  
Page 43

%

Comments:

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO. MSD990714081



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1989 Hazardous Waste Report

OFF-SITE IDENTIFICATION

FORM

OI

INSTRUCTIONS: Read the detailed instructions on the back of this page before completing this form.

|                                                                                                                                                                             |                                                                        |                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Site 1</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>PAID004319810 | B. Name of off-site installation or transporter<br>Calgon Carbon Corp.                                               |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                        | D. Address of off-site installation<br>Street 200 Neville Road<br>City Neville Island State PA Zip Code 15225        |
| <b>Site 2</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>LAID000618298 | B. Name of off-site installation or transporter<br>CECOS International                                               |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                        | D. Address of off-site installation<br>Street 27004 S. Frost Road<br>City Livingston State LA Zip Code 70754         |
| <b>Site 3</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>ALID000622464 | B. Name of off-site installation or transporter<br>Chemical Waste Management                                         |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                        | D. Address of off-site installation<br>Street HWY 17 @ Mile Marker 163<br>City Emelle State AL Zip Code 35459        |
| <b>Site 4</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>LAID000777201 | B. Name of off-site installation or transporter<br>Chemical Waste Management                                         |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                        | D. Address of off-site installation<br>Street Route 2, John Brannon Road<br>City Carlyss State LA Zip Code 70663     |
| <b>Site 5</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>LAID000778514 | B. Name of off-site installation or transporter<br>Rollins Environmental Services                                    |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                        | D. Address of off-site installation<br>Street Iberville Parish Deepwell<br>City Bayou Sorrel State LA Zip Code 70762 |

Comments:

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME CEDAR CHEMICAL CO.

EPA ID NO. MSD990714081



**U.S. ENVIRONMENTAL  
PROTECTION AGENCY**

1989 Hazardous Waste Report

**OFF-SITE IDENTIFICATION**

FORM

**OI**

**INSTRUCTIONS:** Read the detailed instructions on the back of this page before completing this form.

|                                                                                                                                                                             |                                                                                                                                                  |                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Site 1</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br><u>ILD098642424</u>                                                                     | B. Name of off-site installation or transporter<br><u>Trade Waste Inceneration</u>                                                    |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input checked="" type="checkbox"/> Transporter<br><input checked="" type="checkbox"/> TSDR |                                                                                                                                                  | D. Address of off-site installation<br>Street <u>7 Mobile Avenue</u><br>City <u>Sauget</u> State <u>IL</u> Zip Code <u>62201-1069</u> |
| <b>Site 2</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] | B. Name of off-site installation or transporter                                                                                       |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input type="checkbox"/> Transporter<br><input type="checkbox"/> TSDR                       |                                                                                                                                                  | D. Address of off-site installation<br>Street _____<br>City _____ State _____ Zip Code _____                                          |
| <b>Site 3</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] | B. Name of off-site installation or transporter                                                                                       |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input type="checkbox"/> Transporter<br><input type="checkbox"/> TSDR                       |                                                                                                                                                  | D. Address of off-site installation<br>Street _____<br>City _____ State _____ Zip Code _____                                          |
| <b>Site 4</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] | B. Name of off-site installation or transporter                                                                                       |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input type="checkbox"/> Transporter<br><input type="checkbox"/> TSDR                       |                                                                                                                                                  | D. Address of off-site installation<br>Street _____<br>City _____ State _____ Zip Code _____                                          |
| <b>Site 5</b>                                                                                                                                                               | A. EPA ID No. of off-site installation or transporter<br>[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] | B. Name of off-site installation or transporter                                                                                       |
| C. Handler type (CHECK ALL THAT APPLY)<br><input type="checkbox"/> Generator<br><input type="checkbox"/> Transporter<br><input type="checkbox"/> TSDR                       |                                                                                                                                                  | D. Address of off-site installation<br>Street _____<br>City _____ State _____ Zip Code _____                                          |

Comments:

**INSTRUCTIONS FOR COMPLETING  
FORM OI - OFF-SITE IDENTIFICATION**

---

**WHO MUST COMPLETE THIS FORM?**

Sites required to file the 1989 Hazardous Waste Report must complete Form OI if:

- Form OI is required by your State, AND
  - The site received hazardous waste from off site or shipped hazardous waste off-site during 1989.
- 

**PURPOSE OF THIS FORM**

Form OI documents the names and addresses of off site installations and transporters.

**HOW TO COMPLETE THIS FORM**

Form OI is divided into five identical parts. You must complete one part for each off-site installation to which you shipped hazardous waste, each off-site installation from which you received hazardous waste and each transporter you used during the reporting year. If these off-site installations and transporters total more than five, you must photocopy and complete additional copies of the form. You do not need to report the address, Box D, for transporters.

Throughout the form, enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable. Use the Comments section at the bottom of the form to clarify or continue any entry. Reference the comment by entering the site number and box letter.

**ITEM-BY-ITEM INSTRUCTIONS**

Complete Boxes A through D for every off-site installation to which you shipped hazardous waste and every off-site installation from which you received hazardous waste during the reporting year.

Complete Boxes A through C for every transporter you used during the year.

**Box A:** EPA ID No. of Off-Site Installation or Transporter

Enter the 12-digit EPA ID number of the off-site installation to which you shipped hazardous waste or from which you received hazardous waste or the EPA ID number of the transporter who shipped hazardous waste to or from your site. If the off-site installation or transporter did not have an EPA ID number during the reporting year, enter "NA" in Box A.

**Box B:** Name of Off-Site Installation or Transporter

Enter the name of the off-site installation or transporter reported in Box A.

**Box C:** Site Type

Check all that apply to describe the off-site installation or transporter reported in Box A.

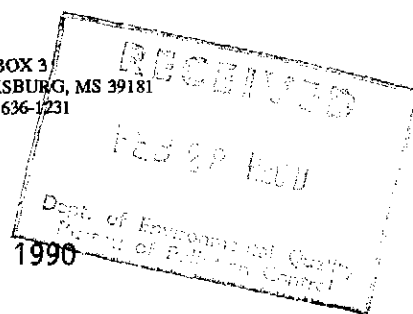
**Box D:** Address of the Off-Site Installation

Enter the address of the off-site installation reported in Box A. If the EPA ID number reported in Box A refers to a transporter, enter "NA" in Box D.

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231



February 22, 1990

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 304

Mississippi Division of Solid and Waste Management  
Bureau of Pollution Control  
Department of Natural Resources  
2380 U. S. Highway 80 West  
(P.O.Box 10385)  
Jackson, MS 39209

Attention: Mr. David Lee

Subject: Cedar Chemical Corporation  
Biennial Hazardous Waste Report

Dear Mr. Lee:

Enclosed is a copy of our 1989 Biennial Report for the Vicksburg Facility. As Cedar submitted a Notification of Hazardous Waste Activity on November 7, 1989, as requested by Mr. Toby Cook, that form is not included with this submittal.

If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Environmental Affairs

STB/ld  
Enc.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

Vicksburg Chemical Corp.  
CEDAR CHEMICAL CO.

EPA ID NO.

MISID99107114101811

FORM  
ICU.S. ENVIRONMENTAL  
PROTECTION AGENCY1987 Hazardous Waste Generation  
and Management ReportIDENTIFICATION AND  
CERTIFICATION

## WHO MUST COMPLETE THIS FORM?

Form IC must be completed by every site that received this package.

## INSTRUCTIONS:

Please read the detailed instructions beginning on page 8 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Complete Sections I through IV and Sections VI through IX immediately. Complete Section V, certification, after you have finished the full report package.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                      |                                                                                                |                                                               |                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| <b>SEC. I.</b> Site name and physical location which may differ from the mailing address. Complete items A through G.<br>Mark <input checked="" type="checkbox"/> for items A, B, C, D, F, and G if same as label; if different, enter corrections. If label is absent, enter information.                                                                                                                                                                                                |  |                      |                                                                                                |                                                               |                                                               |
| A. Site/company name<br>Same as label <input checked="" type="checkbox"/><br>or — Cedar Chemical Co.                                                                                                                                                                                                                                                                                                                                                                                      |  |                      | B. EPA ID No.<br>Same as label <input checked="" type="checkbox"/><br>or — MISID99107114101811 |                                                               |                                                               |
| C. Address number and street name of physical location - If not known, enter industrial park, building name or other physical location description<br>Same as label <input type="checkbox"/><br>or — P. O. Box 3, Rifle Range Road                                                                                                                                                                                                                                                        |  |                      |                                                                                                |                                                               |                                                               |
| D. City, town, village, etc.<br>Same as label <input type="checkbox"/><br>or — Vicksburg                                                                                                                                                                                                                                                                                                                                                                                                  |  | E. County<br>Warren  |                                                                                                | F. State<br>Same as label <input type="checkbox"/><br>or — MS |                                                               |
| G. Zip Code<br>Same as label <input type="checkbox"/><br>or — 39180-1111                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                      |                                                                                                |                                                               |                                                               |
| <b>SEC. II.</b> Mailing address of site.<br>Mark <input checked="" type="checkbox"/> for A, B, C, and D if same as label; if different, enter corrections.                                                                                                                                                                                                                                                                                                                                |  |                      |                                                                                                |                                                               |                                                               |
| A. Number and street name of mailing address<br>Same as label <input type="checkbox"/><br>or —                                                                                                                                                                                                                                                                                                                                                                                            |  |                      |                                                                                                |                                                               |                                                               |
| B. City, town, village, etc.<br>Same as label <input type="checkbox"/><br>or —                                                                                                                                                                                                                                                                                                                                                                                                            |  |                      | C. State<br>Same as label <input type="checkbox"/><br>or —                                     |                                                               | D. Zip Code<br>Same as label <input type="checkbox"/><br>or — |
| <b>SEC. III.</b> Name, title, and telephone number of the person who should be contacted if questions arise regarding this report.                                                                                                                                                                                                                                                                                                                                                        |  |                      |                                                                                                |                                                               |                                                               |
| A. Please print: Last name<br>Boswell                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | First name<br>Steven |                                                                                                | M.I.<br>T.                                                    |                                                               |
| B. Title<br>Director of Environmental Affairs                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                      | C. Telephone<br>601 636-1231<br>Extension 314                                                  |                                                               |                                                               |
| <b>SEC. IV.</b> Enter the Standard Industrial Classification (SIC) Code that describes the principal products, group of products, produced or distributed, or the services rendered at the site's physical location. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. SIC codes are listed beginning on page 1 of the 1987 Hazardous Waste Generation, Shipment and Management Report Codebook.                             |  |                      |                                                                                                |                                                               |                                                               |
| A. 2819                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | B. 2873              |                                                                                                | C. 2812                                                       |                                                               |
| D. 2869                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | E. 2879              |                                                                                                | F. NA11                                                       |                                                               |
| <b>SEC. V.</b> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. |  |                      |                                                                                                |                                                               |                                                               |
| A. Please print: Last name<br>Ahlers                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | First name<br>Fred   |                                                                                                | M.I.<br>L.                                                    |                                                               |
| B. Signature<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                      | Title<br>Plant Manager                                                                         |                                                               |                                                               |
| Date of signature<br>03 21 88<br>Mo. Day Yr.                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                      |                                                                                                |                                                               |                                                               |



SEC.  
VI.

Does this site's EPA ID authorize hazardous waste generation?

- ☐ NO — SKIP TO SECTION VII.
- ☒ YES — Did this site generate any hazardous waste during 1987?
- ☒ YES — READ DETAILED INSTRUCTION ON PAGE 4 OF THE 1987 HAZARDOUS WASTE GENERATION AND MANAGEMENT REPORT INSTRUCTIONS BOOKLET FOR ACUTE AND ACCUMULATION LIMITS. MARK ☒ NEXT TO THE HAZARDOUS WASTE GENERATION QUANTITY CATEGORY THAT APPLIED TO THIS SITE DURING 1987.
- ☒ Category 1: More than 1000 kg (2,200 lb) in one or more months
- ☐ Category 2: More than 100 kg (220 lb) but no more than 1000 kg (2,200 lb) in any single month
- ☐ Category 3: No more than 100 kg (220 lb) in any single month
- ☐ Mark ☒ if this site changed from Category 1 to Category 2 or 3 due to waste minimization activity conducted during 1986 or 1987.
- ☐ NO — CONTINUE BELOW, MARK ☒ NEXT TO ALL THAT APPLY.
- ☐ Generated, excluded or delisted wastes
- ☐ Generated hazardous waste prior to 1987 but do not expect to generate in the future - MARK ☒ FOR REASON IN ONE BOX BELOW
- ☐ Waste was from one-time event(s) (e.g. spills, remedial actions, etc.)
- ☐ Waste minimization activity undertaken during 1986 or 1987
- ☐ Out of business
- ☐ Generated hazardous waste prior to 1987 and expect to generate in the future
- ☐ Never generated before but expect to generate in the future
- ☐ Never generated and do not expect to generate in the future - MARK ☒ FOR REASON IN ONE BOX BELOW
- ☐ Protective notifier only
- ☐ Misunderstood the requirements
- ☐ Notified to secure transportation services
- ☐ Other EXPLAIN REASON FOR GENERATOR NOTIFICATION IN COMMENTS

SEC.  
VII.

Does this site have RCRA Interim Status or a RCRA permit to treat, store, or dispose hazardous waste?

- ☒ NO — SKIP TO SECTION VIII
- ☐ YES — Did the site treat, store, or dispose (T/S/D) hazardous waste in RCRA-regulated units during 1987?
- ☐ YES — SKIP TO SECTION VIII
- ☐ NO — CONTINUE BELOW, MARK ☒ NEXT TO ALL THAT APPLY
- ☐ T/S/D excluded waste during 1987
- ☐ T/S/D hazardous waste in exempt units during 1987
- ☐ T/S/D hazardous waste prior to 1987 but did not T/S/D waste during 1987. MARK ☒ IN ONE BOX BELOW
- ☐ T/S/D will resume in the future
- ☐ Have notified of planned closure
- ☐ Site is in closure or post closure
- ☐ Never T/S/D hazardous waste prior to 1987 but: MARK ☒ IN ONE BOX BELOW
- ☐ Expect to T/S/D hazardous waste in the future
- ☐ Do not expect to T/S/D hazardous waste in the future - EXPLAIN REASON FOR INTERIM STATUS OR PERMIT IN COMMENTS

SEC.  
VIII.

Do you wish to withdraw this site's generator notification or EPA Part A permit application?

Withdraw generator notification ☐ Yes ☒ NoWithdraw Part A permit application ☐ Yes ☒ No

PERMITTED OR INTERIM STATUS

This facility is not a RCRA T/S/D/R facility.

SEC.  
IX.

Does this site have an area not requiring a RCRA Part A or Part B permit that is used exclusively for the short term accumulation of hazardous waste?

☐ NO☒ YES — DOES THE AREA HAVE:

Containers

☐ No☒ Yes

Tanks

☒ No☐ Yes

ENTER THE NUMBER OF TANKS AND THEIR TOTAL CAPACITY IN GALLONS.

Number

Gallon capacity

Comments:

25 drums estimated amt. that would be accumulated at one time.  
Stored in 55-gal. drums.

EPA ID NO. M SD 9 90 7 1 4 0 8 1



**U.S. ENVIRONMENTAL  
PROTECTION AGENCY**

## 1987 Hazardous Waste Generation and Management Report

## WASTE GENERATION AND MANAGEMENT

**FORM**  
**GM**

### WHO MUST COMPLETE THIS FORM?

Form GM must be completed by every site that generated hazardous waste on site or shipped hazardous waste off site during 1987.

7

Mark ☒ If you are not required to complete Form GM.**INSTRUCTIONS:**

Please read the detailed instructions beginning on page 12 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Make and complete a photocopy of this form for each hazardous waste generated on site or shipped off site during 1987.

Complete Sections I through IV. Throughout this form enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable.

|                                        |                                             |                           |                                          |                                                                                                                                       |  |                                          |
|----------------------------------------|---------------------------------------------|---------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|
| Sec. 1                                 | A. Waste description<br>Instruction Page 12 |                           |                                          | Hazardous waste containing dirt, crushed cans, trash, tank bottoms contaminated with Dinoseb mostly created by redrumming of product. |  |                                          |
| B. EPA hazardous waste code<br>Page 12 |                                             |                           | C. State hazardous waste code<br>Page 13 |                                                                                                                                       |  |                                          |
| P 0 2 0      N A      N A      N A     |                                             |                           | N A      N A      N A                    |                                                                                                                                       |  |                                          |
| D. SIC code<br>Page 13                 |                                             | E. Source code<br>Page 13 |                                          | F. Waste form code<br>Page 13                                                                                                         |  | G. Waste minimization results<br>Page 13 |
| 2 8 7 9                                |                                             | 2 9                       |                                          | N 4 5                                                                                                                                 |  | 6                                        |

[illegible]

|                 |                                                                                                                                                                           |                                                              |                                 |                                                                                                                |                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Sec. III</b> | <b>A. 1986 quantity generated</b><br>Instruction Page 20<br>_____189_____                                                                                                 | <b>B. 1987 quantity generated</b><br>Page 20<br>_____28_____ | <b>C. UOM</b><br>Page 21<br>[T] | <b>D. Density</b><br>Page 21<br>[N][A] • _____<br><input type="checkbox"/> lbs/gal <input type="checkbox"/> sg | <b>E. Waste origin</b><br>Page 21   Code [A]<br>On-site _____<br>T/S/D/R code _____ |
|                 | <b>F. On-site T/S/D/R code</b><br>Page 21      No on-site T/S/D/R<br>1. [N][A]    2. [N][A]    3. [N][A]    4. [N][A]    5. [N][A]    6. [N][A]    7. [N][A]    8. [N][A] |                                                              |                                 |                                                                                                                |                                                                                     |

|                |                                                                                    |                                          |                                     |                                            |                                             |
|----------------|------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------|--------------------------------------------|---------------------------------------------|
| <b>Sec. IV</b> | <b>A. EPA ID No. of facility to which waste was shipped</b><br>Instruction Page 22 | <b>B. Number of shipments</b><br>Page 22 | <b>C. Transport mode</b><br>Page 23 | <b>D. Off-site T/S/D/R code</b><br>Page 23 | <b>E. Total Quantity shipped</b><br>Page 23 |
|                | L A D 0 0 0 6 1 8 2 9 8                                                            | 4                                        | H                                   | M 7 2 N A                                  | 2 8                                         |

Comments: Sec. I., C. 5-gal. cans containing Dinoseb were redrummed generating <sup>contaminated</sup> empty cans that had to be crushed and disposed of. Additional material that was contaminated with Dinoseb during redrumming phase was disposed of with cans.

SITE NAME 4, Cedar Chemical Co.

## 1987 Hazardous Waste Generation and Management Report

**FORM**  
**GM**

## WASTE GENERATION AND MANAGEMENT

Form GM must be completed by every site that generated hazardous waste on site or shipped hazardous waste off site during 1987.

7

Mark ☒ if you are not required to complete Form GM.

Please read the detailed instructions beginning on page 12 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Make and complete a photocopy of this form for each hazardous waste generated on site or shipped off site during 1987.

Complete Sections I through IV. Throughout this form enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable.

B. EPA hazardous waste code  
Page 12  
P 0 2 0 1 1 1 N A 1 1 N A 1 1 N A

|                        |                           |                               |                                          |
|------------------------|---------------------------|-------------------------------|------------------------------------------|
| D. SIC code<br>Page 13 | E. Source code<br>Page 13 | F. Waste form code<br>Page 13 | G. Waste minimization results<br>Page 13 |
| 289                    | 10                        | H48                           |                                          |

| <b>Sec. II</b><br><b>A. Organics</b><br>Instruction Page 14<br>High <u>S</u><br>Low <u>  </u><br>Test <u>  </u> Note <u>  </u>                                                                                                                                           | <b>B. Water</b><br>Page 15<br>High <u>9</u><br>Low <u>  </u><br>Note <u>  </u>                                                                                                        | <b>C. Total Solids</b><br>Page 15<br>High <u>M</u><br>Low <u>  </u><br>Note <u>  </u>           | <b>D. Suspended Solids</b><br>Page 15<br>High <u>U</u><br>Low <u>  </u><br>Note <u>  </u> | <b>E. BTU</b><br>Page 16<br>High <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u><br>Low <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u><br>UOM <u>  </u> Note <u>N</u> | <b>F. Toxic Metals</b><br>Page 16<br>Note <u>A</u><br><table border="1"> <thead> <tr> <th>Metal</th> <th>High</th> <th>Low</th> <th>Test</th> </tr> </thead> <tbody> <tr><td>1. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> <tr><td>2. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> <tr><td>3. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> <tr><td>4. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> <tr><td>5. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> <tr><td>6. <u>  </u><u>  </u><u>  </u></td><td><u>  </u></td><td><u>  </u></td><td><u>  </u></td></tr> </tbody> </table> | Metal | High | Low | Test | 1. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> | 2. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> | 3. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> | 4. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> | 5. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> | 6. <u>  </u> <u>  </u> <u>  </u> | <u>  </u> | <u>  </u> | <u>  </u> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|-----|------|----------------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|
| Metal                                                                                                                                                                                                                                                                    | High                                                                                                                                                                                  | Low                                                                                             | Test                                                                                      |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 1. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 2. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 3. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 4. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 5. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| 6. <u>  </u> <u>  </u> <u>  </u>                                                                                                                                                                                                                                         | <u>  </u>                                                                                                                                                                             | <u>  </u>                                                                                       | <u>  </u>                                                                                 |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |
| <b>G. pH</b><br>Page 18<br>High <u>9</u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u><br>Low <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u><br>Note <u>9</u> | <b>H. Flashpoint</b><br>Page 18<br>High <u>&gt;350</u> °F<br>Low <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u><br>Note <u>D</u> | <b>I. Cyanides</b><br>Page 19<br>High <u>7</u><br>Low <u>  </u><br>Test <u>  </u> Note <u>D</u> | <b>J. Halogens</b><br>Page 20<br>High <u>9</u><br>Low <u>  </u><br>Note <u>N</u>          | <b>K. Radioactive</b><br>Page 20<br>Yes <input type="checkbox"/><br>No <input checked="" type="checkbox"/><br>Note <u>N</u>                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |     |      |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |                                  |           |           |           |

|             |                                                                   |                                                 |                              |                                                                                                                    |                                                                          |
|-------------|-------------------------------------------------------------------|-------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Sec.<br>III | A. 1986 quantity generated<br>Instruction Page 20<br><br>12845298 | B. 1987 quantity generated<br>Page 20<br><br>10 | C. UOM<br>Page 21<br><br>LGJ | D. Density<br>Page 21<br><br>19.3<br><br><input checked="" type="checkbox"/> lbs/cu ft <input type="checkbox"/> sq | E. Waste origin<br>Page 21<br>Code C<br><br>On-site P121<br>T/S/D/R code |
|-------------|-------------------------------------------------------------------|-------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|

F. On-site T/S/D/R code  
Page 21

1. C I I I I 2. P I I I I 3. N I A 4. N I A 5. N I A 6. N I A 7. N I A 8. N I A

|                |                                                                                                                             |                                                                                                                           |                                                                                                                             |                                                                                                                                 |                                                                                                                           |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Sec. IV</b> | <b>A. EPA ID No. of facility to which waste was shipped</b><br>Instruction Page 22                                          | <b>B. Number of shipments</b><br>Page 22                                                                                  | <b>C. Transport mode</b><br>Page 23                                                                                         | <b>D. Off-site T/S/D/R code</b><br>Page 23                                                                                      | <b>E. Total Quantity shipped</b><br>Page 23                                                                               |
|                | <div style="border-bottom: 1px solid black; width: 100%; text-align: right;"> <span style="float: right;">N A</span> </div> | <div style="border-bottom: 1px solid black; width: 100%; text-align: right;"> <span style="float: right;">O</span> </div> | <div style="border-bottom: 1px solid black; width: 100%; text-align: right;"> <span style="float: right;">N A</span> </div> | <div style="border-bottom: 1px solid black; width: 100%; text-align: right;"> <span style="float: right;">N A N A</span> </div> | <div style="border-bottom: 1px solid black; width: 100%; text-align: right;"> <span style="float: right;">O</span> </div> |

Comments: Sec. III., item F. - There is no listing for this waste stream in 40CFR261.32, but it has been manifested as hazardous for off-site disposal.



BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

Cedar Chemical Co.

EPA ID NO.

M1S1D19191017114101811



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1987 Hazardous Waste Generation  
and Management Report

FORM  
WR

WASTE RECEIVED FROM OFF SITE

WHO MUST COMPLETE THIS FORM?

Form WR must be completed by every site that received hazardous waste from an off-site source during 1987.



Mark ☒ if you are not required to complete Form WR.

INSTRUCTIONS:

Please read the detailed instructions beginning on page 24 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Photocopy and complete additional copies of this form if your site received more than two hazardous wastes from off site during 1987.

For each waste, complete boxes A through J. Throughout this form enter "DK" if the information requested is not known or not available; enter "NA" if the information is not applicable.

|                                          |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
|------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------|------------------------------------------|--|
| Waste<br>1                               | A. Description of hazardous waste<br>Instruction Page 24 |                                                                                                                                                                                                                                                                     | B. EPA hazardous waste code<br>Page 24 |                   | C. State hazardous waste code<br>Page 25 |  |
|                                          |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
| D. Off-site source EPA ID No.<br>Page 25 |                                                          | E. 1987 Quantity received<br>Page 25                                                                                                                                                                                                                                |                                        | F. UOM<br>Page 25 | G. Density<br>Page 25                    |  |
|                                          |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
| H. Waste form code<br>Page 25            | I. Number of shipments<br>Page 25                        | J. On-site T/S/D/R code<br>Page 26                                                                                                                                                                                                                                  |                                        |                   |                                          |  |
|                                          |                                                          | 1 <input type="text"/> <input type="text"/> <input type="text"/> 2 <input type="text"/> <input type="text"/> <input type="text"/> 3 <input type="text"/> <input type="text"/> <input type="text"/> 4 <input type="text"/> <input type="text"/> <input type="text"/> |                                        |                   |                                          |  |
|                                          |                                                          | 5 <input type="text"/> <input type="text"/> <input type="text"/> 6 <input type="text"/> <input type="text"/> <input type="text"/> 7 <input type="text"/> <input type="text"/> <input type="text"/> 8 <input type="text"/> <input type="text"/> <input type="text"/> |                                        |                   |                                          |  |

|                                                                                                          |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------|------------------------------------------|--|
| Waste<br>2                                                                                               | A. Description of hazardous waste<br>Instruction Page 24 |                                                                                                                                                                                                                                                                     | B. EPA hazardous waste code<br>Page 24 |                   | C. State hazardous waste code<br>Page 25 |  |
|                                                                                                          |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
| D. Off-site source EPA ID No.<br>Page 25                                                                 |                                                          | E. 1987 Quantity received<br>Page 25                                                                                                                                                                                                                                |                                        | F. UOM<br>Page 25 | G. Density<br>Page 25                    |  |
| Same as above <input type="checkbox"/><br>Mark <input checked="" type="checkbox"/> if same as in Waste 1 |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
| or -> <input type="text"/>                                                                               |                                                          |                                                                                                                                                                                                                                                                     |                                        |                   |                                          |  |
| H. Waste form code<br>Page 25                                                                            | I. Number of shipments<br>Page 25                        | J. On-site T/S/D/R code<br>Page 26                                                                                                                                                                                                                                  |                                        |                   |                                          |  |
|                                                                                                          |                                                          | 1 <input type="text"/> <input type="text"/> <input type="text"/> 2 <input type="text"/> <input type="text"/> <input type="text"/> 3 <input type="text"/> <input type="text"/> <input type="text"/> 4 <input type="text"/> <input type="text"/> <input type="text"/> |                                        |                   |                                          |  |
|                                                                                                          |                                                          | 5 <input type="text"/> <input type="text"/> <input type="text"/> 6 <input type="text"/> <input type="text"/> <input type="text"/> 7 <input type="text"/> <input type="text"/> <input type="text"/> 8 <input type="text"/> <input type="text"/> <input type="text"/> |                                        |                   |                                          |  |

Comments:



BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

Cedar Chemical Co.

EPA ID NO.

M, S, D, 9, 9, 0, 7, 1, 4, 0, 8, 1



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1987 Hazardous Waste Generation  
and Management Report

FORM  
WM

WASTE MINIMIZATION

PART I

WHO MUST COMPLETE THIS FORM?

Form WM Part I, describing efforts undertaken to implement waste minimization programs, must be completed by all generators required to file an Annual/Biennial Report. This requirement was established in response to statutory provisions included in the Hazardous and Solid Waste Amendments of 1984 (HSWA).

NOTE: Generators shipping hazardous waste off site are required to certify, on Item 16 of the Uniform Hazardous Waste Manifest, that they have a program in place to reduce, to the degree determined economically practicable, the volume and toxicity of hazardous waste generated. A similar certification must also be made by generators who have obtained a RCRA treatment, storage, or disposal permit. Consistent with these certification requirements, generators must report, on Form WM Part I, the efforts undertaken to implement waste minimization programs.

INSTRUCTIONS:

Please read the detailed instructions on page 29 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Answer questions 1 through 10. Throughout this form enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable.

1. Did this site create or expand a source reduction and recycling program?

|        | 1987                     |                                     | 1986                     |                                     | Prior Years                         |                          |
|--------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
|        | Yes                      | No                                  | Yes                      | No                                  | Yes                                 | No                       |
| Create | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Expand | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

2. Did this site have a written policy or statement that outlined goals, objectives and methods for source reduction and recycling of hazardous waste?

|     | 1987                                | 1986                                | Prior Years                         |
|-----|-------------------------------------|-------------------------------------|-------------------------------------|
| Yes | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| No  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

3. What was the dollar amount of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste? ENTER ZERO (0) IF NONE.

|                      | 1987       | 1986       | Prior Years |
|----------------------|------------|------------|-------------|
| Capital expenditures | \$ 0       | \$ 0       | \$ 0        |
| Operating costs      | \$ 225,564 | \$ 432,676 | \$ 494,560  |

4. Did this site have an employee training program or provide incentives (bonuses, awards, personal recognition, etc.) to identify and implement source reduction and recycling opportunities and activities?

|            | 1987                     |                                     | 1986                     |                                     | Prior Years              |                                     |
|------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
|            | Yes                      | No                                  | Yes                      | No                                  | Yes                      | No                                  |
| Training   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Incentives | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5. Did this site conduct a source reduction and/or recycling opportunity assessment or audit? Note: an opportunity assessment or audit is a procedure that identifies practices that can be implemented to reduce the generation of hazardous waste or the quantity which must subsequently be treated, stored or disposed.

|                  | 1987                     |                                     | 1986                     |                                     | Prior Years                         |                          |
|------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
|                  | Yes                      | No                                  | Yes                      | No                                  | Yes                                 | No                       |
| Site-Wide        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Process-Specific | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

6. Did this site identify or implement new SOURCE REDUCTION opportunities to reduce the volume and/or toxicity of hazardous waste generated at this site?

|           | 1987                     |                                     | 1986                     |                                     | Prior Years                         |                          |
|-----------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
|           | Yes                      | No                                  | Yes                      | No                                  | Yes                                 | No                       |
| Identify  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Implement | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

7. What factors have delayed or prevented implementation of SOURCE REDUCTION opportunities. MARK ☒ NEXT TO ALL THAT APPLY.

- ☒ a. Insufficient capital to install new source reduction equipment or implement new source reduction practices.
- ☐ b. Lack of technical information on source reduction techniques, applicable to my specific production processes.
- ☒ c. Source reduction is not economically feasible: cost savings in waste management or production will not recover the capital investment.
- ☒ d. Concern that product quality may decline as a result of source reduction.
- ☐ e. Technical limitations of the production processes.
- ☐ f. Permitting burdens.
- ☒ g. Other (SPECIFY) There were no new waste streams created. This facility is currently not manufacturing products that have created wastes in past years.

8. Did this site identify or implement new RECYCLING opportunities to reduce the volume and/or toxicity of hazardous waste generated at this site or subsequently treated, stored, or disposed of on site or off site?

|           | 1987                     |                                     | 1986                     |                                     | Prior Years                         |                          |
|-----------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
|           | Yes                      | No                                  | Yes                      | No                                  | Yes                                 | No                       |
| Identify  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Implement | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



EPA ID NO. M S D 9 9 0 7 1 4 0 8 1

9. What factors have delayed or prevented implementation of on-site or off-site RECYCLING opportunities. MARK ☒ NEXT TO ALL THAT APPLY.

- ☒ a. Insufficient capital to install new recycling equipment or implement new recycling practices.
- ☐ b. Lack of technical information on recycling techniques applicable to this site's specific production processes.
- ☒ c. Recycling is not economically feasible: cost savings in waste management or production will not recover the capital investment.
- ☒ d. Concern that product quality may decline as a result of recycling.
- ☐ e. Requirements to manifest wastes inhibit shipments off site for recycling.
- ☐ f. Financial liability provisions inhibit shipments off site for recycling.
- ☐ g. Technical limitations of product processes inhibit shipments off site for recycling.
- ☐ h. Technical limitations of production processes inhibit on-site recycling.
- ☐ i. Permitting burdens inhibit recycling.
- ☐ j. Lack of permitted off-site recycling facilities.
- ☒ k. Unable to identify a market for recyclable materials.
- ☐ l. Other (SPECIFY) \_\_\_\_\_

10. Has this site requested or received technical information or financial assistance on source reduction and/or recycling practices from any of the following sources? MARK ☒ NEXT TO ALL THAT APPLY.

|                                                | 1987                     |                          | 1986                     |                          | Prior Years                         |                                     |
|------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                                | Technical                | Financial                | Technical                | Financial                | Technical                           | Financial                           |
| a. Local government                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. State government                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Federal government                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d. Trade associations                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e. Educational Institutions                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f. Suppliers                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| g. Other parts of your firm                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Other firms/consultants                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. No request made                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| j. Other (conferences, literature, etc.) _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

Comments:

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

Cedar Chemical Co.

EPA ID NO.

M<sub>1</sub>S<sub>1</sub>D<sub>1</sub>9<sub>1</sub>9<sub>1</sub>0<sub>1</sub>7<sub>1</sub>1<sub>1</sub>4<sub>1</sub>0<sub>1</sub>8<sub>1</sub>1<sub>1</sub>



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1987 Hazardous Waste Generation  
and Management Report

FORM  
WM

WASTE MINIMIZATION

PART II

WHO MUST COMPLETE THIS FORM?

Form WM Part II must be completed only by generators that engaged in an activity during 1987 that resulted in waste minimization.

Waste minimization means:

- (1) reduction in the volume and/or toxicity of hazardous waste generated as a result of source reduction; and/or,
- (2) reduction in the volume and/or toxicity of hazardous waste subsequently treated, stored, or disposed as a result of on-site or off-site recycling.



Mark ☒ and do not complete this form if no waste minimization results were achieved during 1987.

INSTRUCTIONS:

Please read the detailed instructions beginning on page 30 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Make and complete a photocopy of this form for each hazardous waste minimized in 1987.

Complete Sections I through IV. Throughout this form enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable.

|                                                         |                                                                               |                                                                                                                   |                                              |                                                         |
|---------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------|
| Sec.<br>I                                               | A. EPA hazardous waste code<br>Instruction Page 31                            | B. State hazardous waste code<br>Page 31                                                                          | C. Product or service description<br>Page 31 | D. Product or service<br>SIC code<br>Page 31            |
|                                                         | <div><div></div><div></div><div></div><div></div><div></div><div></div></div> | <div><div></div><div></div><div></div><div></div><div></div><div></div></div>                                     |                                              | <div><div></div><div></div><div></div><div></div></div> |
| E. Waste form code<br>Page 31                           | F. UOM<br>Page 32                                                             | G. Density<br>Page 32                                                                                             | H. Source description:<br>Page 32            | I. Source code<br>Page 32                               |
| <div><div></div><div></div><div></div><div></div></div> | <div><div></div></div>                                                        | <div><div></div><div></div><div></div><div></div><div>lbs/<br/>gal</div><div></div><div></div><div>kg</div></div> |                                              | <div><div></div><div></div></div>                       |

|                                                                                                                                                                                                            |                                                                                                                           |                                                                                                                                                                                                                                       |                                                         |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------|
| Sec.<br>II                                                                                                                                                                                                 | A. 1986 quantity generated<br>Instruction Page 33                                                                         | B. 1987 quantity generated<br>Page 33                                                                                                                                                                                                 | C. Production ratio<br>Page 33                          | D. Toxicity change code<br>Page 35 |
|                                                                                                                                                                                                            | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>                                                                                                             | <div><div></div><div></div><div></div><div></div></div> | <div><div></div></div>             |
| E. Waste minimization: recycling<br>Page 35                                                                                                                                                                |                                                                                                                           | F. Waste minimization: source reduction<br>Page 36                                                                                                                                                                                    |                                                         |                                    |
| Code<br>1. <div><div></div></div> 2. <div><div></div></div> Quantity recycled<br><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |                                                                                                                           | Code<br>1. <div><div></div></div> 2. <div><div></div></div> 3. <div><div></div></div> Quantity prevented<br><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |                                                         |                                    |

|             |                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------|
| Sec.<br>III | A. Narrative description of waste minimization project or activity and results achieved<br>Instruction Page 43 |
|             | Quantities of waste generated in 1987 decreased due to lack of manufacturing activity.                         |

Sec.  
IV.

**Instructions:** Answer questions 1 through 4. Mark ☒ next to the effects produced by the source reduction and/or recycling activity reported on this form in Sections I through III.

1. What effect did this site's source reduction and/or recycling activity have on the quantity of water effluent produced by hazardous waste generation processes during 1987?  
☐ a. Increase in the quantity of water effluent  
☐ b. Decrease in the quantity of water effluent  
☐ c. No effect on the quantity of water effluent  
☐ d. Don't know
2. What effect did this site's source reduction and/or recycling activity have on the toxicity of water effluent produced by hazardous waste generation processes during 1987?  
☐ a. Increase in the concentration of hazardous constituents  
☐ b. Decrease in the concentration of hazardous constituents  
☐ c. No effect on the concentration of hazardous constituents  
☐ d. Don't know
3. What effect did this site's source reduction and/or recycling activity have on the quantity of air emissions produced by hazardous waste generation processes during 1987?  
☐ a. Increase in the quantity of air emissions  
☐ b. Decrease in the quantity of air emissions  
☐ c. No effect on the quantity of air emissions  
☐ d. Don't know
4. What effect did this site's source reduction and/or recycling activity have on the toxicity of the air emissions produced by hazardous waste generation processes during 1987?  
☐ a. Increase in the concentration of hazardous constituents  
☐ b. Decrease in the concentration of hazardous constituents  
☐ c. No effect on the concentration of hazardous constituents  
☐ d. Don't know

Comments:

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL  
OR ENTER:

SITE NAME

Cedar Chemical Co.

EPA ID NO.

MISD199071140811



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

1987 Hazardous Waste Generation  
and Management Report

FORM  
PS

WASTE TREATMENT, STORAGE,  
DISPOSAL, OR RECYCLING  
PROCESS SYSTEMS

WHO MUST COMPLETE THIS FORM?

Form PS must be completed by every site that, during 1987, had one or more hazardous waste management systems, existing or under construction, composed of: (1) treatment, storage, disposal, or recycling processes subject to RCRA interim status or permit requirements; or (2) treatment, disposal, or recycling processes exempt from RCRA interim status or permit requirements.

INSTRUCTIONS:

Please read the detailed instructions beginning on page 44 of the 1987 Hazardous Waste Generation and Management Report Instructions booklet before completing this form.

Make and complete a photocopy of this form for each hazardous waste treatment, storage, disposal or recycling system operated or under construction during 1987.

Complete Sections I through IV. Throughout this form enter "DK" if the information requested is not known or is not available; enter "NA" if the information requested is not applicable.

|                                       |                                                                                              |  |  |                                      |                                                                      |                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------|--|--|--------------------------------------|----------------------------------------------------------------------|----------------------------------------|
| Sec.<br>I                             | A. Waste treatment, storage, disposal or recycling system description<br>Instruction Page 57 |  |  |                                      | B. System identification<br>Page 57                                  |                                        |
|                                       | DNBP waste H <sub>2</sub> O treatment in Calgon carbon adsorption units                      |  |  |                                      | Number                                                               | Letter                                 |
| C. On-site T/S/D/R code(s)<br>Page 58 |                                                                                              |  |  | D. Regulatory status code<br>Page 58 | F. Number of months system was<br>operational during 1987<br>Page 58 | G. Type and number of units<br>Page 58 |
| B211                                  |                                                                                              |  |  | B                                    | Code Year<br>A 1987                                                  | Type Number<br>A 15                    |

|            |                                                  |                   |                                                   |                                              |
|------------|--------------------------------------------------|-------------------|---------------------------------------------------|----------------------------------------------|
| Sec.<br>II | A. 1987 influent quantity<br>Instruction Page 60 | B. UOM<br>Page 61 | C. 1987 solid/sludge residual quantity<br>Page 61 | D. 1987 aqueous effluent quantity<br>Page 62 |
|            | Total 676949<br>RCRA 4335                        | T                 | Total 176<br>RCRA 176                             | Total 676949<br>RCRA 4335                    |

|             |                                            |                                    |                                       |                                               |                                                          |
|-------------|--------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|----------------------------------------------------------|
| Sec.<br>III | A. Maximum capacity<br>Instruction Page 63 | B. Operational capacity<br>Page 64 | C. Limitations on capacity<br>Page 65 | D. Commercial availability<br>code<br>Page 65 | E. Percent capacity<br>commercially available<br>Page 65 |
|             | 1202                                       | 681284                             | 1. C 2. M 3.                          | D                                             | 10 %                                                     |

|                                |                                           |                                                                                                                         |                                                                 |  |  |
|--------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--|--|
| Sec.<br>IV                     | A. Life expectancy<br>Instruction Page 66 | B. Expected change in maximum capacity during<br>next 5 years (through 1992)<br>Page 66                                 | C. Increase or decrease in maximum capacity code<br>Page 66     |  |  |
|                                | 20 Years                                  | <input type="checkbox"/> Yes (CONTINUE WITH BOX C)<br><input checked="" type="checkbox"/> No (SKIP REMAINING QUESTIONS) |                                                                 |  |  |
| D. Amount of change<br>Page 67 | E. Expected year of change<br>Page 67     | F. Future commercial availability code<br>Page 67                                                                       | G. Percent future capacity commercially<br>available<br>Page 67 |  |  |
|                                | 19                                        |                                                                                                                         |                                                                 |  |  |

Comments:

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P. O. BOX  
VICKSBURG, MS 39180  
(601) 636-1231

**RECEIVED**

**MAY - 2 1988**

Dept. of Natural Resources  
Bureau of Pollution Control

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 113 213 019

Mr. Jim Hardage  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

April 28, 1988

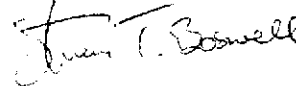
Subject: Cedar Chemical Corporation  
Biennial Hazardous Waste Report

Dear Mr. Hardage:

As we discussed by telephone today, April 28, 1988, please find enclosed two copies of the Report for the Vicksburg facility. Also, as we discussed, as the Commission on Natural Resources ruled that the Vicksburg facility was not properly regulated as a RCRA TSD facility, we are reporting as though we are operating as a generator only.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

**enSearch****Department of Environmental Quality**

# Vicksburg Chemical Company

## AI General Information

| AI ID | Branch   | SIC                    | County | Basin                                                 | Start      | End |
|-------|----------|------------------------|--------|-------------------------------------------------------|------------|-----|
| 1766  | Chemical | 2812,<br>2819,<br>2873 | Warren | Mississippi River Basin -<br>direct dischargers to MS | 10/27/1992 |     |

## Physical and Mailing Address

| Physical Address (Primary)                   | Mailing Address                      |
|----------------------------------------------|--------------------------------------|
| 4280 Rifle Range Road<br>Vicksburg, MS 39180 | PO Box 821003<br>Vicksburg, MS 39182 |

## Telecommunications

| Type              | Address or Phone |
|-------------------|------------------|
| Work phone number | (601) 636-1231   |

## Alternate / Historic AI Identifiers

| Alt ID    | Alt Name                   | Alt Type              | Start Date | End Date   |
|-----------|----------------------------|-----------------------|------------|------------|
| 14900041  | Vicksburg Chemical Company | Air-AIRS AFS          | 10/12/2000 |            |
| 278000041 | Vicksburg Chemical Company | Air-Construction      | 06/26/1997 |            |
| 278000041 | Vicksburg Chemical Company | Air-Construction      | 04/16/1998 |            |
| 278000041 | Vicksburg Chemical Company | Air-Construction      | 03/12/1999 |            |
| 278000041 | Vicksburg Chemical Company | Air-Title V Operating | 02/14/2000 | 02/01/2005 |
| 278000041 | Vicksburg Chemical         | Air-Title V Operating | 09/22/2000 |            |

Haz waste

|              | Company                    |                        |            |            |
|--------------|----------------------------|------------------------|------------|------------|
| MSR110030    | Vicksburg Chemical Company | GP-Baseline            | 11/30/2000 | 09/11/2005 |
| MSR110030    | Vicksburg Chemical Company | GP-Sara Title III      | 10/27/1992 | 11/30/2000 |
| MSD990714081 | Vicksburg Chemical Company | Hazardous Waste-EPA ID | 01/20/1993 |            |
| 1766         | Vicksburg Chemical Company | Official Site Name     | 10/27/1992 |            |
| MS0027995    | Vicksburg Chemical Company | Water-NPDES            | 09/10/1996 | 09/09/2001 |
| MS0027995    | Vicksburg Chemical Company | Water-NPDES            | 09/24/2001 | 08/31/2006 |

## Regulatory Programs

| Program         | SubProgram                                    |
|-----------------|-----------------------------------------------|
| Air             | PSD                                           |
| Air             | Title V - major                               |
| Air             | Unpaid Invoices                               |
| Hazardous Waste | Conditionally Exempt Small Quantity Generator |
| Water           | Baseline Stormwater                           |
| Water           | NPDES Major Industrial                        |
| Water           | NPDES Major Industrial - WET                  |

Show/Hide NonPrint Sections

Date/Time: 7/14/2004 9:32:26 AM

MDEQ | EPD | ECED | DID | enSearch | enSearch Online | CTS

CERTIFIED MAIL  
RETURN RECEIPT REQUIRED  
7001 1140 0001 9228 9681

CESQ6 bid net  
enter

**Vicksburg**  
chemical company

Mississippi Dept. of Env. Quality  
Data Integration Division  
P.O. Box 10385  
Jackson, MS 39289-0385

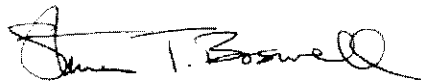
February 28, 2002

Re: Annual Hazardous Waste Report  
Vicksburg Chemical Company, MSD990714081

Gentlemen:

Please find enclosed the Annual Hazardous Waste Report for Vicksburg Chemical Company, including the Site Identification Form and Form GM, for the year 2001. Please contact me with any questions there may be.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. McDill



**The Potassium People**

P.O. Box 821003 • Vicksburg, MS 39182  
Bus: (601) 636-1231 • Fax: (601) 636-5767



|                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>MAIL THE COMPLETED FORM</b><br><b>TO:</b><br>The Appropriate EPA Regional or State Office                                         | MSD990714<br><b>VICKSBURG CHEMICAL COMPANY</b><br>Attn: STEVE BOSWELL<br>PO BOX 3<br>VICKSBURG, MS 39181                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| <b>1. Reason for Submittal and Status of Information Supplied (see instructions on pages 10 and 11)</b><br><br>CHECK CORRECT BOX(ES) | <b>A. Reason for Submittal:</b><br><input type="checkbox"/> To provide initial notification (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities).<br><input type="checkbox"/> To provide subsequent notification (to update site identification information).<br><input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application.<br><input type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment# _____)<br><input checked="" type="checkbox"/> As a component of the Hazardous Waste Report.                                                                                                                                                                                       |  |  |
| <b>2. Site EPA ID Number (see instructions on page 11)</b>                                                                           | EPA ID Number:<br>MSD990714081                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |
| <b>3. Site Name (see instructions on page 11)</b>                                                                                    | Legal Name:<br>Vicksburg Chemical Company                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| <b>4. Site Location Information (see instructions on page 11)</b>                                                                    | Street Address: 4280 Rifle Range Road<br>City, Town, or Village: Vicksburg State: MS<br>County Name: Warren Zip Code: 39180                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>5. Site Land Type (see instructions on page 11)</b>                                                                               | Site Land Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municiple <input type="checkbox"/> State <input type="checkbox"/> Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>6. North American Industry Classification System (NAICS) Code(s) for the Site (see instructions on page 11)</b>                   | A. 32518 B. 325311<br>C. 325314 D. 325181                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| <b>7. Site Mailing Address (see instructions on page 12)</b>                                                                         | Street or P.O. 4280 Rifle Range Road<br>City, Town, or Village: Vicksburg<br>State: MS<br>Country: USA Zip Code: 39180                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
| <b>8. Site Contact Person (see instructions on page 12)</b>                                                                          | First Name: Steven MI: T Last Name: Boswell<br>Phone Number: 6016361231 Phone Number Extension: 219                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
| <b>9. Legal Owner and Operator of the Site (see instructions on pages 12 and 13)</b>                                                 | A. Name of Site's Legal Owner: Vicksburg Chemical Company Date Became Owner (mm/dd/yyyy): 01/02/1992<br>Owner Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municiple <input type="checkbox"/> State <input type="checkbox"/> Other<br>B. Name of Site's Operator: Vicksburg Chemical Company Date Became Operator (mm/dd/yyyy): 01/02/1992<br>Operator Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municiple <input type="checkbox"/> State <input type="checkbox"/> Other |  |  |

### A. Hazardous Waste Activities

(choose only one of the following three categories)

- ☐ a. LQG: Greater than 1,000 kg/mo (2,200 lbs.) of non-acute hazardous waste; or
- ☐ b. SQG: 100 to 1,000 kg/mo (200 - 2,200 lbs.) of non-acute hazardous waste; or
- ☒ c. CESQG: Less than 100 kg/mo of non-acute hazardous waste

**In addition, indicate other generator activities (check all that apply)**

- ☐ d. United States Importer of Hazardous Waste
- ☐ e. Mixed Waste (hazardous and radioactive) Generator

☐ 2. Transporter of Hazardous Waste

- ☐ 3. **Treater, Storer, or Disposer of Hazardous Waste (at your site)** Note: A hazardous waste permit is required for this activity
- ☐ 4. **Recycler of Hazardous Waste (at your site)** Note: A hazardous waste permit may be required for this activity
- 5. Exempt Boiler and/or Industrial Furnace**
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, Refining Furnace Exemption
- ☐ 6. **Underground Injection Control**

**1. Large Quantity Handler of Universal Waste** [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. (check all boxes that apply):

|                          | <u>Generated</u>         | <u>Accumulated</u>       |
|--------------------------|--------------------------|--------------------------|
| a. Batteries             | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Pesticides            | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Thermostats           | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Lamps                 | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Other (specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Other (specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Other (specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |

- ☐ 2. Destination Facility for Universal Waste  
Note: A hazardous waste permit may be required for this activity.

**1. Used Oil Transporter - Indicate Type(s) of Activity(ies)**

- ☐ a. Transporter
- ☐ b. Transfer Facility

☐ a. Processor

☐ b. Re-refiner

- ☐
3. Off-Specification Used Oil Burner

☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner

☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

**A. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

[illegible]

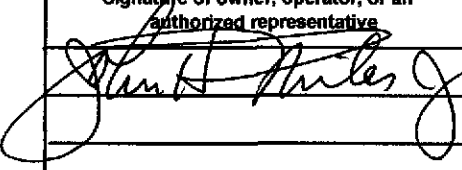
**B. Waste Code for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. use an additional page if more spaces are needed for

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
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**12. Comments (see instructions on page 17)**

This facility did not generate hazardous wastes for off-site disposal in calendar year 2001.

**13. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the the possibility of fine and imprisonment for knowing violations. (see instructions on page 17)

| Signature of owner, operator, or an authorized representative                      | Name and Official Title (type or print) | Date Signed (mm-dd-yyyy) |
|------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|
|  | John H Miles Sr. Vice-Pres.             | 02/22/2002               |
|                                                                                    |                                         |                          |
|                                                                                    |                                         |                          |
|                                                                                    |                                         |                          |
|                                                                                    |                                         |                          |
|                                                                                    |                                         |                          |

**Vicksburg**  
chemical company

RCRA File  
Warren Co.

RECEIVED  
APR 22 2002  
Dept. of Environmental Quality  
Office of Pollution Control

Mr. D. Scott Mills  
Env. Engineer  
Office of Pollution Control  
P.O. Box 10385  
Jackson, MS 39289-0385

April 5, 2002

Re: Vicksburg Chemical Company, D.I.P.  
NPDES Permit MS0027995, Air Operating Permit 2780-00041  
RCRA I.D. No. MSD990714081

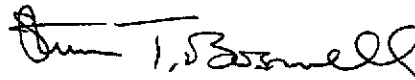
Dear Mr. Mills:

As we discussed by telephone, on March 8, 2002, Vicksburg Chemical Company and its sister company, Cedar Chemical Company, filed for protection from creditors under Chapter 11 of the United States Bankruptcy Code. A copy of the documents filed is attached.

Vicksburg has curtailed most operations, although some sources will be operated from time to time to deplete raw material stocks and reduce inventories at the plant site. Any operating sources will be monitored as required by permit.

Please contact me with any questions there may be.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. McDill

***The Potassium People***

P.O. Box 821003 • Vicksburg, MS 39182  
Bus: (601) 636-1231 • Fax: (601) 636-5767

United States Bankruptcy Court  
Southern District of New York

**Notice of Bankruptcy Case Filing**

A bankruptcy case concerning the debtor(s) listed below was filed under Chapter 11 of the United States Bankruptcy Code, entered on 03/08/2002 at 05:34 AM and filed on 03/08/2002.

**Vicksburg Chemical Company**  
c/o Trans-Resources Inc.  
375 Park Avenue  
New York, NY 10152  
Tax id: 64-0821426



The case was filed by the debtor's attorney:

**Joshua Joseph Angel**  
Angel & Frankel, P.C.  
460 Park Avenue  
New York, NY 10022-1906  
(212) 752-8000

The case was assigned case number 02-11040 to Judge Stuart M. Bernstein.

The filing of a bankruptcy case automatically stays certain actions against the debtor and the debtor's property. If you attempt to collect a debt or take other action in violation of the Bankruptcy Code, you may be penalized.

If you would like to view the bankruptcy petition and other documents filed by the debtor, they are available at our *Internet* home page <http://ecf.nysb.uscourts.gov/index.html> or at the Clerk's Office in Manhattan, White Plains or Poughkeepsie.

You may be a creditor of the debtor. If so, you will receive an additional notice from the court setting forth important deadlines.

**Kathleen Farrell**  
Clerk, U.S.  
Bankruptcy Court

**PACER Service Center**

United States Bankruptcy Court  
Southern District of New York

**Notice of Bankruptcy Case Filing**

A bankruptcy case concerning the debtor(s) listed below was filed under Chapter 11 of the United States Bankruptcy Code, entered on 03/08/2002 at 05:09 AM and filed on 03/08/2002.

**Cedar Chemical Corporation**  
c/o Trans-Resources, Inc.  
375 Park Avenue  
New York, NY 10152  
Tax id: 62-1256255



The case was filed by the debtor's attorney:

**Joshua Joseph Angel**  
Angel & Frankel, P.C.  
460 Park Avenue  
New York, NY 10022-1906  
(212) 752-8000

The case was assigned case number 02-11039 to Judge Stuart M. Bernstein.

The filing of a bankruptcy case automatically stays certain actions against the debtor and the debtor's property. If you attempt to collect a debt or take other action in violation of the Bankruptcy Code, you may be penalized.

If you would like to view the bankruptcy petition and other documents filed by the debtor, they are available at our *Internet* home page <http://ecf.nysb.uscourts.gov/index.html> or at the Clerk's Office in Manhattan, White Plains or Poughkeepsie.

You may be a creditor of the debtor. If so, you will receive an additional notice from the court setting forth important deadlines.

**Kathleen Farrell**  
Clerk, U.S.  
Bankruptcy Court

**PACER Service Center**

UNITED STATES BANKRUPTCY COURT  
SOUTHERN DISTRICT OF NEW YORK

Hearing Date: March 26 2002  
~~at 10:30 a.m.~~  
at 10:30

In re:

Chapter 11

CEDAR CHEMICAL CORPORATION,

Case No. 02-11039 (SMB)

Debtor.

In re:

Chapter 11

VICKSBURG CHEMICAL COMPANY,

Case No. 02-11040 (SMB)

Debtor.

**ORDER SCHEDULING HEARING TO CONSIDER MOTION OF  
THE DEBTORS FOR AN ORDER (I) DEEMING UTILITIES  
ADEQUATELY ASSURED OF FUTURE PAYMENT AND  
(II) ESTABLISHING PROCEDURES FOR DETERMINING  
REQUESTS FOR ADDITIONAL ASSURANCES PURSUANT  
TO SECTIONS 105(a) AND 366 OF THE BANKRUPTCY CODE  
(A&F No. 011)**

Upon the application dated March 8, 2002 (the "Application") of Cedar Chemical Corporation and Vicksburg Chemical Company (collectively, the "Debtors"), debtors and debtors-in-possession, pursuant to Sections 105(a) and 366(b) of Title 11, United States Code, 11 U.S.C. 101 *et seq.* (the "Bankruptcy Code") seeking, *inter alia*, (a) entry of an order scheduling a hearing to consider its Motion for an Order (i) Deeming Utilities Adequately Assured of Future Payments and (ii) Establishing Procedures for Determining Requests for Additional Assurances Pursuant to Sections 105(a) and 366 of the Bankruptcy Code; and (b) fixing notice and hearing requirements;

MANAGE:355511

and it appearing that no notice of the relief granted in this Order is required under the circumstances, and good and sufficient cause appearing therefor; and after due deliberation; it is hereby

ORDERED, that on March 26, 2002 at <sup>10:30 A.M.</sup>~~12:00 P.M.~~ or as soon thereafter as counsel can be heard, a hearing (the "Hearing") will be held before the Honorable Stuart M. Bernstein, United States Bankruptcy Judge, at the United States Bankruptcy Court, One Bowling Green, Room 723, New York, New York 10004, to consider entry of an order, substantially in the form of the proposed Order annexed to the Application as Exhibit "A", authorizing the relief requested in the Application; and it is further

ORDERED, that service of this Order and the Application upon (a) each of the Utility Companies set forth in Exhibit "1" to the proposed Order; (b) the Office of the United States Trustee for the Southern District of New York; (c) the Debtors' 20 largest unsecured creditors; and (d) all parties who have filed notices of appearance, by overnight mail or other overnight delivery service, on or before March 4, 2002 shall constitute sufficient notice of the hearing; and it is further

ORDERED, that all answering papers must be in writing, must state the standing of such objectant in this case and must set forth with particularity the legal and factual basis of the objection, and must be filed with the Court (with a courtesy copy to chambers of the undersigned United States Bankruptcy Judge) and served upon the Debtors' attorneys, Angel & Frankel, P.C., 460 Park Avenue, New York, New York 10022-1906, Attn: Bonnie L. Pollack, Esq., such that the papers are received by the above parties and filed with the Clerk of the Bankruptcy Court on or before (i) ~~the close of~~ <sup>12:00 P.M.</sup> ~~business~~ on March 25, 2002; and it is further

ORDERED, that any requirement for the filing of a memorandum of law in support of the Application be, and it hereby is, waived; and it is further



ORDERED, that the twenty (20) day period set forth in 11 U.S.C. § 366(b) within which the Debtors may furnish adequate assurance of payment be, and hereby is, hereby extended to and including the Hearing and the Court's determination of the Application (the "Assurance Period") and that no Utility Company may alter, refuse or discontinue service during the Assurance Period.

Dated: New York, New York  
March 8, 2002

/s/

United States Bankruptcy Judge



STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JAMES I. PALMER, JR.  
EXECUTIVE DIRECTOR

FILE COPY

May 11, 1993

Mr. G. Alan Farmer  
Chief, RCRA Branch  
Waste Management Division  
U. S. EPA  
345 Courtland St., NE  
Atlanta, GA 30365

Dear Mr. Farmer:

Re: Cedar Chemical Corporation  
Vicksburg, Mississippi  
Consent Decree

The following are our comments regarding the Preliminary Report RCRA Facility Investigation for Cedar Chemical Corporation, Vicksburg, Mississippi, which was submitted on June 15, 1992, as required by their Consent Decree. We have recently received inquiries from them concerning approval of the report so they may proceed. Your earliest review would be appreciated since they have already told us that they consider final approval/disapproval to be from you.

A general comment concerning Sections 1, 2, and 3 is that chemicals used, chemical reaction by-products, and combustion products are not completely and adequately identified for all chemical processes at the facility. All chemicals used, products, and by-products formed for each chemical process must be identified to assure that investigation of the site does not overlook potential contamination. A table or tables listing the processes and such chemicals might be appropriate. Examples are:

1. Page 2-5;  
First Paragraph - What are the products of incomplete combustion of methyl parathion and paranitrosodium phenolate since there is never complete combustion; especially, in uncontrolled fire.

Mr. G. Alan Farmer  
May 11, 1993  
Page 2

2. Page 3-2;  
Last Paragraph - Empty drums containing cyanuric chloride, tributylamine, and epichlorohydrin are mentioned as being disposed of in SWMU 2. These compounds are not mentioned as raw materials, products, or by-products on pages 2-1 and 2-2. What were they?
3. Page 3-7;  
First Paragraph - What is the source of the carbon tetrachloride, bromoform, and chlorobenzene (raw materials, products, or by-products)?
4. Page 3-10;  
First Paragraph - The manufacture of dinitro-ortho-cresol is stated as being produced in the dinoseb plant. What are the raw materials, products, and by products?
5. Page 3-10;  
Last Paragraph - Where does the carbon tetrachloride contamination come from?
6. Page 3-11;  
Second Paragraph - Methanol, triethanolamine, and xylene are referenced as ingredients for dinoseb formulations.
7. Page 3-16;  
Second Paragraph - Same comment as No. 1.
8. Page 3-16;  
Last Paragraph - References isopropylamine as a reactant to produce S-propylaminotriazine which then reacts with mono-ethylamine. None of these chemicals are previously mentioned on pages 2-1 and 2-2.
9. Page 3-17;  
First Paragraph - Where did the acetone come from?

Mr. G. Alan Farmer  
May 11, 1993  
Page 3

10. Page 3-19;  
Third Paragraph - What is Premerge 3? What were the toluene, isopropyl alcohol, versene, polyglycol, flomo 8x, diethanolamine, and triethanolamine used for? In what process? What are versene and flomo 8x?

Other comments are:

11. Page 2-1;  
Last Paragraph - What is an IRFNA unit?
12. Page 2-13;  
First Paragraph - Is chlorine still monitored near the North Plant on Warrington Road?
13. Page 3-21/22;  
Last/First Line - Appears to be information left out!
14. Page 3-21/22; - What is the potential for bromine compounds contamination from the North Plant?
15. Page 5-1;  
Section 5.1 - States that there are fifteen (15) wells and two (2) piezometers on Figure 6; however Figure 6 only shows fourteen (14) wells.
16. Page 6-1/2; Last/  
First Sentence States the "current groundwater contamination appears to be the result of a broken drainage system pipe which was discharging water to the Surface Impoundment for treatment". This area appears relatively near the railroad car unloading and dinoseb area where contamination was known to exist in the past and may be the source of the contamination.

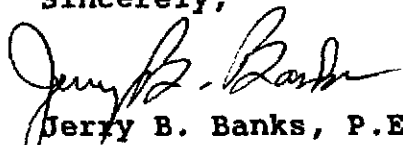
Mr. G. Alan Farmer  
May 11, 1993  
Page 4

17. Page 8-2;  
First Paragraph - If visible contamination has surfaced in the Inactive Landfill, then investigation of the constituents surfacing should be done.
18. Page 9-5;  
Section 9.6 - What is the condition of the remaining tank foundation (cracks, deterioration, etc.)? Could neutralized process wastewater from the dinoseb process leaked through cracks in the foundation? If yes, then investigation of soils under the foundation is needed?
19. Page 9-7;  
Section 9.9 - Same question concerning foundation and need for further investigation as above?
20. Page 9-7;  
Section 9.10 - Same questions concerning foundation and need for further investigation as above? This area is of great concern due to previous fire in the methyl parathion plant.
21. Page 9-17;  
Section 9.29 - Is there documentation as to how visually contaminated soil was removed? Was any sampling conducted to confirm removal of contaminants? To what depth was soil removed?
22. Page 10-2;  
Table - For each Major/Minor SWMU Field Investigation you should incorporate the other SWMU's or AOC's that the investigation will include into the list. (Example: SWMU 11 minor investigation will include SWMU 15.)
23. Appendix C;  
Plate 1 - All monitoring wells do not appear to be located on the map!

Mr. G. Alan Farmer  
May 11, 1993  
Page 5

If you have any questions, please contact me at 601-961-5221.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jerry B. Banks".

Jerry B. Banks, P.E.  
Chief, RCRA Section

JBB:gd  
cc: Steven T. Boswell

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

P 861 004 547



April 8, 1993

Taher Diab  
Environmental Engineer  
TSD Facilities  
Hazardous Waste Division  
Mississippi Department of  
Environmental Quality  
Office of Pollution Control  
P. O. Box 10385  
Jackson, Mississippi 39289-0385

Re: Closure Plan for Hazardous  
Container Storage Area  
Cedar Chemical Corporation, Vicksburg, MS  
EPA ID No. MSD990714081  
United States of America v. Cedar Chemical  
Corporation, Civil No. W92-0008, In the  
United States District Court for the  
Southern District of Mississippi

Dear Mr. Diab:

Thank you for your letter of April 2, 1993. I have forwarded your comments regarding the referenced Closure Plan to our consultants, Woodward-Clyde, for their comments. I have also discussed your letter with our attorney.

As you know, the Closure Plan was submitted in accordance with the requirements of Paragraph IV of the Consent Decree entered in the referenced case. It is my understanding that Cedar is required to await receipt of formal written comments from EPA before modifying the plan and, of course, Cedar will be unable to commence closure until EPA has formally approved the Closure Plan or any modified version of the plan. To date, we have still received no notice from EPA regarding the Closure Plan or any of the other documents which have been submitted to EPA under the Consent Decree.

In light of the foregoing, and in light of the possibility that EPA could designate additional hazardous waste

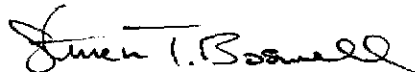
Mr. Taher Diab  
April 8, 1993  
Page 2

management units requiring closure under Paragraph IV.C of the Consent Decree, it might be sensible for EPA and MSDEQ to temporarily defer consideration of the Closure Plan and instead to review and approve the Preliminary Report so that we can then submit a Facility Investigation Work Plan and implement the investigation as soon as possible. Following the investigation, in connection with the corrective measures to be proposed, we could then focus on the requirements of Paragraph IV of the Consent Decree as they affect closure of the storage area.

By copy of this letter, I am requesting EPA to comment on the above proposal. In any event, we will respond to your comments, and to any additional comments from EPA with regard to the Closure Plan promptly following our receipt of EPA's comments and we will be prepared to commence closure within fifteen days of notification by EPA of its approval of the Closure Plan, together with any agreed revisions, as required by Paragraph IV.H of the Consent Decree.

Again, I appreciate your attention to this matter and look forward to receiving your response to the foregoing suggestion as well as a response from EPA.

Sincerely yours,



Steve Boswell  
Director of Environmental Affairs

SB:jw

cc: John Dickinson, Chief  
Waste Compliance Section  
RCRA and FF Branch  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 694 580 195

cc: Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
Mississippi Department of  
Environmental Quality  
P. O. Box 10385  
Jackson, Mississippi 39209

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 861 004 548





**FILE COPY**

STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JAMES I. PALMER, JR.  
EXECUTIVE DIRECTOR

April 2, 1993

Mr. Steve Boswell  
Vicksburg Chemical Company  
P.O. Box 821003  
Rifle Range Road  
Vicksburg, MS 39182

Re: Comments on Closure Plan for Hazardous  
Container Storage Area and Off-Specification  
Product Storage Area  
Cedar Chemical Corporation, Vicksburg, MS  
EPA I.D. No. MSD 990 714 081

Dear Mr. Boswell:

Enclosed are comments on the latest Closure Plan submitted in June of 1992. We have incorporated EPA's comments on a previously submitted plan by Cedar Chemical Corporation.

Please submit a revised plan incorporating these comments to our office by June 11, 1993.

If you have any questions, please call me at 601-961-5389.

Sincerely,

  
Taher Diab  
TSD Facilities  
Hazardous Waste Division

TD:gd  
Enclosure

cc: Mr. G. Alan Farmer, RCRA Branch, EPA

CEDAR CHEMICAL CORPORATION

Comments to Closure Plan

April 1, 1993

1. Page 4 and Appendix C (page 8) - The closure standard will be based on health based soil concentrations which do not result in a cumulative carcinogenic risk greater than  $1 \times 10^{-6}$  using the most current Carcinogen Slope Factors (which are not necessarily the same as those from the RFI Guidance or the proposed Subpart S Rule), and standard exposure assumptions which are provided in the RFI Guidance. These standard exposure assumptions will also be used when calculating the hazard index for systemic toxicants.

Health Based Closure Standards for Soils:

| <u>Constituent</u> | <u>Concentration</u> | <u>Reference</u>                                                                                                                                             |
|--------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dinoseb            | 80 mg/kg             | Based on Chronic Oral RfD of $1 \times 10^{-3}$ mg/kg/day (IRIS)                                                                                             |
| Arsenic            | 24 mg/kg             | Based on Chronic Oral RfD of $3 \times 10^{-4}$ mg/kg/day (IRIS)                                                                                             |
| Toxaphene          | 0.64 mg/kg           | Calculated using $1 \times 10^{-6}$ risk factor, 70 kg adult, intake of $1 \times 10^{-4}$ kg/day and a slope factor of 1.1 (mg/kg/day) <sup>-1</sup> (IRIS) |
| Atrazine           | 400 mg/kg            | Based on Chronic Oral RfD of $5 \times 10^{-3}$ mg/kg/day (IRIS)                                                                                             |
| Toluene            | 16,000 mg/kg         | Based on Chronic Oral RfD of $2 \times 10^{-1}$ mg/kg/day, 16 kg child and $2 \times 10^{-4}$ kg/day (IRIS)                                                  |

To achieve clean closure, hazardous waste and waste residue must be removed or decontaminated. To make this demonstration, concentrations of hazardous constituents remaining in the storage area must be below health based levels, since these levels are used to indicate whether or not hazardous waste is still present in the unit.

2. Page 4 "Closure Performance Standard" - The analysis of hydroblast water cannot be substituted for direct sampling and analysis of the concrete to be left in place. However, any solids derived from the hydroblasting process must meet the health based closure standards for soils before disposal into a commercial solid waste disposal facility. To adequately determine clean closure of the concrete to be left in place a more direct method of testing the concrete surface should be used. Therefore the following recommendation is made to wipe-test the surface of the concrete using the random sampling guidelines of Chapter 9 of SW 846 "Test Methods for Evaluating Solid Waste", Third Edition. The basic procedure is to wipe the specified area with a cotton gauze - one to analyze for the organic constituents and one to analyze for the inorganic constituents. Each gauze wipe would be saturated with the appropriate preservative. Blanks would need to be run also to verify the results. The closure standards for this process would need to be based on detection limits since oral exposure routes are highly improbable in this case. If this recommendation is not followed then Cedar Chemical must select some other adequate method for the direct determination that clean closure has been established. This must be done before certification of closure will be accepted.

Primary Drinking Water Standards to be met by Hydroblast Water:

| <u>Constituent</u> | <u>Concentration</u> | <u>Reference</u>               |
|--------------------|----------------------|--------------------------------|
| Dinoseb            | 0.007 mg/l           | Proposed MCL FR, July 25, 1990 |
| Arsenic            | 0.05 mg/l            | MCL                            |
| Toxaphene          | 0.003 mg/l           | MCL<br>FR, Jan. 30, 1991       |
| Atrazine           | 0.003 mg/l           | MCL<br>FR, Jan 30, 1991        |
| Toluene            | 1.0 mg/l             | MCL<br>FR, Jan 30, 1991        |

These standards must be met before the hydroblast water can be wasted to the environment.

3. Page 16 "Pad and Equipment Decontamination" - Toxaphene was omitted from the list of constituents to be analyzed for in the third paragraph. This sentence shall now read "A representative composite containing bits of plastic sheeting, dislodged concrete, and any other solids generated during the decontamination operations will be sent to a

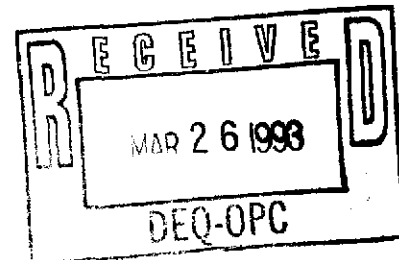
offsite laboratory to test for Toxaphene, Dinoseb, Arsenic, Atrazine, and Toluene."

4. Page 18 "Soil Sampling" - It is stated "In the event that clean closure criteria are not met, soil removal and additional sampling would be required." It must be understood that for clean closure to be certified and verified the health based closure standards for soils and the concrete must be met. If at a point during closure work Cedar Chemical determines that physical excavation is no longer feasible to meet clean closure standards then at that time the MDEQ must be notified and a post-closure plan be submitted as required by MHWMR Part 265 Subpart G.
5. Page 17 "Soil Sampling" - Since sample points have been selected to be collected from areas where the concrete pad is cracked, consideration must be given as to whether or not sample points should also be located around the perimeter of the unit where there may have been contaminated runoff from the pad, or where curbing may have been breached. Therefore it is required that sample points be located adjacent to each evident crack or fissure of the drainage curb of the concrete pad.
6. Page 18 "Soil Sampling" - Although the closure plan states that the "mobility of pesticides in soil underneath the concrete will be limited, "specifications from some of the formulations indicate that some of the products stored in these areas were infinitely soluble in water, and as such have the potential to be more mobile than some of the pesticides in their pure form. Based on this observation, it appears that a six-inch sampling depth would be insufficient, especially since the units were in operation for 10 years. Therefore the six-inch proposed sampling depth will be the initial depth that is sampled.
7. Page 21 "Analytical Methods and Parameters" - It is stated that Cedar will use its onsite laboratory when possible for screening, but no mention is made anywhere else with regard to the purpose of such screening. Such screening does not appear to be necessary for the purpose of demonstrating clean closure.
8. Page 23 "Contingent Closure Plan" - The proposed "flexible cleanup" alternatives based on a site-specific risk assessment and installation of a RCRA cap is not allowed under RCRA regulations. All hazardous constituents in and around the unit must either be removed to achieve the cleanup levels discussed above, or the unit must be redefined as a landfill, undergo post-closure, and obtain a post-closure permit. In the is case, installation of a groundwater monitoring system for the unit would also be required.

- 1.
9. What is the intended future use of the storage areas? If the existing sumps are going to be active after closure, every effort should be made to ensure that any holes in the concrete are properly sealed so that future contaminant migration is minimized. This situation can be avoided if angle borings are taken to collect samples from under the sumps, rather than drilling through the sumps.
  10. It is required that Cedar Chemical give ten (10) days notice to the MDEQ prior to commencement of the work activities so that split samples may be taken to help verify the results.

**VICKSBURG CHEMICAL COMPANY**

P.O. Box 821003 • Vicksburg MS 39182 • 601-636-1231 • FAX 601-636-5767



March 12, 1993

Dr. Dann Spariosu  
RCRA Compliance Section  
Waste Management Division  
U. S. Environmental Protection Agency  
Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Mr. Steve Spengler  
Chief, RCRA TSD Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39289-0385

Re: Cedar Chemical Corporation/  
Vicksburg Chemical Company  
MSD990714081  
Consent Decree W92-0008 (B)  
Change in Project Coordinator for Cedar

Dear Dr. Spariosu and Mr. Spengler:

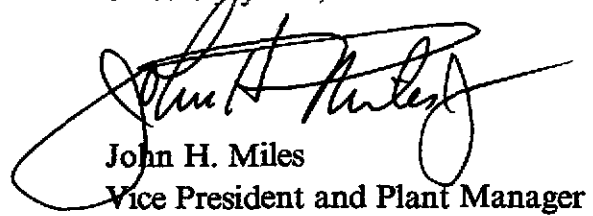
As required by Paragraph XIII (C) of the referenced Consent Decree, this is to notify you that Steve Boswell has resumed his employment at the Vicksburg Plant, and accordingly, will resume his role as Cedar's Project Coordinator, replacing Fred Ahlers, who filled in as Project Coordinator in Steve's absence. Steve's mailing address is:

Mr. Steve Boswell  
Environmental Manager  
Vicksburg Chemical Company  
P.O. Box 821003  
Rifle Range Road  
Vicksburg, Mississippi 39182  
Telephone: (601) 636-1231 ext. 219  
FAX: (601) 636-5767

Dr. Dan Spariosu  
Mr. Steve Spengler  
March 12, 1993  
Page 2

This change is effective seven days from your receipt of this letter. If you have any questions, please call Steve Boswell at the above number.

Sincerely yours,



John H. Miles  
Vice President and Plant Manager

JHM

c: Mr. Jerry Banks, MSDEQ  
Ms. Karen Dworkin, USDOJ  
Allen T. Malone, Apperson, Crump  
Ms. Zylpha K. Pryor, EPA ORC

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
HENRY L. KLEIN  
ROSS B. CLARK II  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
BRUCE M. SMITH  
TONI CAMPBELL PARKER  
STEVEN N. DOUGLASS  
RANDY S. GARDNER  
KAREN R. WILLIAMS  
ELIZABETH ANN CAMP  
ALAN G. CRONE  
STEPHANIE GREEN COLE  
WILLIAM L. ZOCCOLA  
LINDA D. SCHOLL

\*ALSO ADMITTED IN MISSISSIPPI  
\*\*ALSO ADMITTED IN ARKANSAS

SAMUEL RUBENSTEIN  
OF COUNSEL

LAW OFFICES  
**APPERSON, CRUMP, DUZANE & MAXWELL**

SUITE 2110  
ONE COMMERCE SQUARE  
MEMPHIS, TENNESSEE 38103-2519  
901 / 525-1711

FACSIMILE 901 / 521-0789

March 11, 1993

CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1896-1985

**EAST OFFICE:**

SUITE 100  
1755 KIRBY PARKWAY  
MEMPHIS, TENNESSEE 38120  
901 / 756-6300  
FACSIMILE 901 / 757-1296

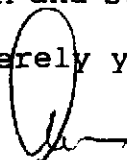
Mr. John Miles  
Vice President and Plant Manager  
Vicksburg Chemical Company  
P. O. Box 3  
Rifle Range Road  
Vicksburg, Mississippi 39180

Re: Consent Decree

Dear John:

Now that Steve Boswell is back in the picture, I suggest that he be re-designated Cedar's Project Coordinator under the Consent Decree. If you agree, please sign the enclosed letter in duplicate and have it sent by certified mail, return receipt requested, to Dann Spariosu with EPA and Steve Spengler with MSDEQ.

Sincerely yours,



Allen T. Malone

ATM:jw

Enclosure



SAT  
CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1896-1985

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
HENRY L. KLEIN  
ROSS B. CLARK II  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
BRUCE M. SMITH  
TONI CAMPBELL PARKER  
STEVEN N. DOUGLASS  
RANDY S. GARDNER  
KAREN R. WILLIAMS  
ELIZABETH ANN CAMP  
ALAN G. CRONE

\*ALSO ADMITTED IN MISSISSIPPI

SAMUEL RUBENSTEIN  
OF COUNSEL

LAW OFFICES

APPERSON, CRUMP, DUZANE & MAXWELL

SUITE 2110

ONE COMMERCE SQUARE

MEMPHIS, TENNESSEE 38103-2519

901 / 525-1711

TELECOPY 901 / 521-0789

EAST OFFICE:

SUITE 100

KIRBY CENTRE

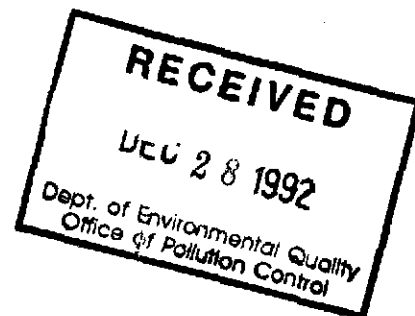
1755 KIRBY PARKWAY

MEMPHIS, TENNESSEE 38120

901 / 756-6300

TELECOPY 901 / 757-1296

December 22, 1992



Ms. Karen S. Dworkin  
Environmental Enforcement Section  
Land & Natural Resources Division  
U. S. Department of Justice  
P. O. Box 7611 Ben Franklin Station  
Washington, D. C. 20530

Zlypha K. Pryor, Esq.  
Associate Regional Counsel  
U. S. Environmental Protection Agency  
Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Re: Consent Decree  
United States of America v. Cedar  
Chemical Corporation, Case No. W92-0008  
In the United States District for the  
Southern District of Mississippi

Dear Counsel:

As confirmed by telephone this week, the Directors of Cedar Chemical Corporation have decided to incorporate Cedar's Vicksburg Chemical Division. When the reorganization is complete, Vicksburg Chemical Company will operate the Vicksburg Plant as a wholly-owned subsidiary of Cedar Chemical Corporation. Cedar, of course, will continue to be responsible for carrying out the provisions of the Consent Decree, although its subsidiary, Vicksburg Chemical Company, and its employees will be directly involved in that effort.

The requirements of the Consent Decree contained in Article III and Article XV with respect to Cedar's conveyance of the Vicksburg Chemical Plant to Vicksburg Chemical Company have been complied with as evidenced by the enclosed copy of Cedar's letter to Vicksburg Chemical Company's Vice President and Plant Manager.

Ms. Karen S. Dworkin  
Zlypha K. Pryor, Esq.  
December 22, 1992  
Page 2

Cedar's Mississippi counsel, Bill Smith, with the firm of Brunini, Grantham, Grower & Hewes, is assisting the Company in obtaining assignment of all of Cedar's environmental permits incident to operations at the Vicksburg Plant to Vicksburg Chemical Company, effective on the day transfer of the assets of Cedar's Vicksburg Chemical Division to Vicksburg Chemical Company shall become effective. The conveyances intended to be effective as of January 1, 1993, subject, however, to subsequent approval of the assignment of Cedar's environmental and operating permits to Vicksburg Chemical Company and subject to recording of the Special Warranty Deed conveying title to the Plant to Vicksburg Chemical Company.

Copies of this letter and the enclosure are being forwarded to persons listed below who are designated to receive notices under the Consent Decree. If either of you has any additional question regarding these matters, please let me know promptly.

Sincerely yours,



Allen T. Malone

ATM:jw

cc: John Dickinson, Chief  
Waste Compliance Section  
RCRA and FF Branch  
U.S. EPA - Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

cc: Chief, Environmental Enforcement Section  
Land & Natural Resources Division  
U. S. Department of Justice  
P. O. Box 7611  
Ben Franklin Station  
Washington, D. C. 20044

APPERSON, CRUMP, DUZANE & MAXWELL

Ms. Karen S. Dworkin  
Zlypha K. Pryor, Esq.  
December 22, 1992  
Page 3

cc: Mr. Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
Mississippi Department of  
Environmental Quality  
P. O. Box 10385  
Jackson, Mississippi 39209-0835

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

December 22, 1992

Mr. John Miles  
Vice President and Plant Manager  
Vicksburg Chemical Company  
P. O. Box 3  
Rifle Range Road  
Vicksburg, Mississippi 39180

Re: Consent Decree - United States  
of America v. Cedar Chemical Corporation  
No. W92-008, In the United States District  
Court for the Southern District of Mississippi

Dear John:

In connection with the implementation of the Reorganization Agreement between Cedar Chemical Corporation and its wholly-owned subsidiary, Vicksburg Chemical Company, and particularly in connection with Cedar's intent to convey title to the Plant, property and equipment comprising Cedar's Vicksburg Chemical Division to Vicksburg Chemical Company, this letter is to confirm certain matters required by the above-referenced Consent Decree (the "Consent Decree").

First, pursuant to Article III.D of the Consent Decree, this will confirm that Vicksburg Chemical Company has been given notice of the existence and terms of the Consent Decree. While it is understood that Cedar Chemical Corporation will continue to be liable for the performance of its obligations under the Consent Decree, Vicksburg Chemical Company has assumed those obligations and shall be responsible for carrying them out.

Second, pursuant to Article XV.C of the Consent Decree, this will confirm Vicksburg Chemical Company's agreement to allow employees, contractors and duly designated representatives of the U. S. Environmental Protection Agency and the Mississippi Department of Environmental Quality (as well as Cedar Chemical Corporation) access to the property and facilities identified in the Consent Decree, as required in accordance with the provisions of Article XV of the Consent Decree.

Mr. John Miles  
December 22, 1992  
Page 2

Your signature below will acknowledge and confirm the understandings expressed in this letter. Duplicate copies of this letter are being furnished to representatives and counsel for the U.S. Environmental Protection Agency and the Mississippi Department of Environmental Quality.

Sincerely yours,

John C. Bumpers  
Executive Vice President  
Finance/Administration

JCB:jw

AGREED TO:

---

John Miles, Vice President  
and Plant Manager  
Vicksburg Chemical Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

SEP 29 1992

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

4WD-RCRA

Mr. F. L. Ahlers, Plant Manager  
Cedar Chemical Corporation  
Vicksburg Plant  
Rifle Range Road  
Vicksburg, Mississippi 39180

Re: Cedar Chemical Corporation, MSD 990 714 081  
Change in Project Coordinator

Dear Mr. Ahlers:

The purpose of this letter is to inform you of a change in the Project Coordinator for the Plaintiff pursuant to Consent Decree No. W92-0008B entered into by Cedar Chemical Corporation and the U.S. Environmental Protection Agency (EPA). Ms. Jeaneanne Gettle will no longer perform this function. The new Project Coordinator for EPA will be:

Dr. Dann Spariosu  
RCRA Compliance Section  
Waste Management Division  
U.S. Environmental Protection Agency, Region IV  
345 Courtland Street, NE  
Atlanta, Georgia 30365

The change is effective October 13, 1992. If you have any questions or comments, please contact Dann Spariosu at (404) 347-7603.

Sincerely yours,

John E. Dickinson, P.E.  
Chief, RCRA Compliance Section  
Office of RCRA and Federal Facilities

cc: Jerry Banks, MDEQ  
Karen Dworkin, U.S. DOJ  
Alan T. Malone, Apperson, Crump, Duzane & Maxwell  
Zylpha K. Pryor, EPA ORC



P 046 601 345



# Receipt for Certified Mail

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

PS Form 3800, June 1991

|                                                                  |    |
|------------------------------------------------------------------|----|
| Sent to <b>MR G ALLAN FARMER</b><br><b>RCRA BRANCH EPA</b>       |    |
| Street and No.<br><b>345 COURTLAND ST NE</b>                     |    |
| P.O., State and ZIP Code<br><b>ATLANTA GA 30365</b>              |    |
| Postage                                                          | \$ |
| Certified Fee                                                    |    |
| Special Delivery Fee                                             |    |
| Restricted Delivery Fee                                          |    |
| Return Receipt Showing<br>to Whom & Date Delivered               |    |
| Return Receipt Showing to Whom,<br>Date, and Addressee's Address |    |
| TOTAL Postage<br>& Fees                                          | \$ |
| Postmark or Date                                                 |    |

1. D.

**SENDER:** Complete item 1 and 2 when additional services are desired, and complete items 3 and 4.  
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.  
1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

|                                                                                                                                                                                                                                                                                                                                                       |                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 3. Article Addressed to:<br><b>MR G ALLAN FARMER CHIEF</b><br><b>RCRA BRANCH</b><br><b>WASTE MANAGEMENT DIVISION</b><br><b>U S EPA REGION IV</b><br><b>345 COURTLAND ST NE</b><br><b>ATLANTA GA 30365</b>                                                                                                                                             | 4. Article Number<br><b>P 046 601 345</b>               |
| Type of Service:<br><input type="checkbox"/> Registered<br><input checked="" type="checkbox"/> Certified<br><input type="checkbox"/> Express Mail<br><input type="checkbox"/> Insured<br><input type="checkbox"/> COD<br><input type="checkbox"/> Return Receipt for Merchandise<br>Always obtain signature of addressee or agent and DATE DELIVERED. |                                                         |
| 5. Signature — Addressee<br><b>X</b>                                                                                                                                                                                                                                                                                                                  | 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature — Agent<br><b>X</b>                                                                                                                                                                                                                                                                                                                      |                                                         |
| 7. Date of Delivery<br><b>OCT 1 - 1992</b>                                                                                                                                                                                                                                                                                                            |                                                         |

PS Form 3811, Apr. 1989 \* U.S.G.P.O. 1989-235-915 DOMESTIC RETURN RECEIPT



FILE COPY

STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JAMES I. PALMER, JR.  
EXECUTIVE DIRECTOR

September 28, 1992

CERTIFIED MAIL NO. P 046 601 345

Mr. G. Allan Farmer, Chief  
RCRA Branch  
Waste Management Division  
U. S. E.P.A., Region IV  
345 Courtland St., N.E.  
Atlanta, GA 30365

Re: Comments on Closure Plan for the Hazardous  
Container Storage Area and Off-Specification  
Product Storage Area  
Cedar Chemical Corporation, Vicksburg, Mississippi  
EPA I. D. No. MSD 990 714 081

Dear Mr. Farmer:

Enclosed is our list of comments on the latest Closure Plan submitted in June of this year. In this list, we have incorporated EPA's comments dated February 7, 1992, on a previously submitted plan by Cedar Chemical Corporation.

If you have any questions, please feel free to give Mr. Taher Diab of my Staff a call at 601-961-5171.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jerry Banks".

Jerry Banks, Chief  
RCRA Section  
Hazardous Waste Division

JB:gd

Enclosure



CEDAR CHEMICAL CORPORATION

Comments to Closure Plan  
dated June, 1992

1. Page 4 and Appendix C (page 8) - The closure standard will be based on health based soil concentrations which do not result in a cumulative carcinogenic risk greater than  $1 \times 10^{-6}$  using the most current Carcinogen Slope Factors (which are not necessarily the same as those from the RFI Guidance or the proposed Subpart S Rule), and standard exposure assumptions which are provided in the RFI Guidance. These standard exposure assumptions will also be used when calculating the hazard index for systemic toxicants.

Health Based Closure Standards for Soils:

| <u>Constituent</u> | <u>Concentration</u> | <u>Reference</u>                                                                                                                                             |
|--------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dinoseb            | 80 mg/kg             | Based on Chronic Oral RfD of $1 \times 10^{-3}$ mg/kg/day (IRIS)                                                                                             |
| Arsenic            | 24 mg/kg             | Based on Chronic Oral RfD of $3 \times 10^{-4}$ mg/kg/day (IRIS)                                                                                             |
| Toxaphene          | 0.64 mg/kg           | Calculated using $1 \times 10^{-6}$ risk factor, 70 kg adult, intake of $1 \times 10^{-4}$ kg/day and a slope factor of 1.1 (mg/kg/day) <sup>-1</sup> (IRIS) |
| Atrazine           | 400 mg/kg            | Based on Chronic Oral RfD of $5 \times 10^{-3}$ mg/kg/day (IRIS)                                                                                             |
| Toluene            | 16,000 mg/kg         | Based on Chronic Oral RfD of $2 \times 10^{-1}$ mg/kg/day, 16 kg child and $2 \times 10^{-4}$ kg/day (IRIS)                                                  |

To achieve clean closure, hazardous waste and waste residue must be removed or decontaminated. To make this demonstration, concentrations of hazardous constituents remaining in the storage area must be below health based levels, since these levels are used to indicate whether or

not hazardous waste is still present in the unit.

2. Page 4 "Closure Performance Standard" - The analysis of hydroblast water cannot be substituted for direct sampling and analysis of the concrete to be left in place. However, any solids derived from the hydroblasting process must meet the health based closure standards for soils before disposal into a commercial solid waste disposal facility. To adequately determine clean closure of the concrete to be left in place a more direct method of testing the concrete surface should be used. Therefore the following recommendation is made to wipe-test the surface of the concrete using the random sampling guidelines of Chapter 9 of SW 846 "Test Methods for Evaluating Solid Waste", Third Edition. The basic procedure is to wipe the specified area with a cotton gauze - one to analyze for the organic constituents and one to analyze for the inorganic constituents. Each gauze wipe would be saturated with the appropriate preservative. Blanks would need to be run also to verify the results. The closure standards for this process would need to be based on detection limits since oral exposure routes are highly improbable in this case. If this recommendation is not followed then Cedar Chemical must select some other adequate method for the direct determination that clean closure has been established. This must be done before certification of closure will be accepted.

Primary Drinking Water Standards to be met by Hydroblast Water:

| <u>Constituent</u> | <u>Concentration</u> | <u>Reference</u>               |
|--------------------|----------------------|--------------------------------|
| Dinoseb            | 0.007 mg/l           | Proposed MCL FR, July 25, 1990 |
| Arsenic            | 0.05 mg/l            | MCL                            |
| Toxaphene          | 0.003 mg/l           | MCL<br>FR, Jan. 30, 1991       |
| Atrazine           | 0.003 mg/l           | MCL<br>FR, Jan 30, 1991        |
| Toluene            | 1.0 mg/l             | MCL<br>FR, Jan 30, 1991        |

These standards must be met before the hydroblast water can be wasted to the environment.

3. Page 16 "Pad and Equipment Decontamination" - Toxaphene was omitted from the list of constituents to be analyzed for in the third paragraph. This sentence shall now read "A representative composite containing bits of plastic

sheeting, dislodged concrete, and any other solids generated during the decontamination operations will be sent to a offsite laboratory to test for Toxaphene, Dinoseb, Arsenic, Atrazine, and Toluene."

4. Page 18 "Soil Sampling" - It is stated "In the event that clean closure criteria are not met, soil removal and additional sampling would be required." It must be understood that for clean closure to be certified and verified the health based closure standards for soils and the concrete must be met. If at a point during closure work Cedar Chemical determines that physical excavation is no longer feasible to meet clean closure standards then at that time the MDEQ must be notified and a post-closure plan be submitted as required by MHWMR Part 265 Subpart G.
5. Page 17 "Soil Sampling" - Since sample points have been selected to be collected from areas where the concrete pad is cracked, consideration must be given as to whether or not sample points should also be located around the perimeter of the unit where there may have been contaminated runoff from the pad, or where curbing may have been breached. Therefore it is required that sample points be located adjacent to each evident crack or fissure of the drainage curb of the concrete pad.
6. Page 18 "Soil Sampling" - Although the closure plan states that the "mobility of pesticides in soil underneath the concrete will be limited, "specifications from some of the formulations indicate that some of the products stored in these areas were infinitely soluble in water, and as such have the potential to be more mobile than some of the pesticides in their pure form. Based on this observation, it appears that a six-inch sampling depth would be insufficient, especially since the units were in operation for 10 years. Therefore the six-inch proposed sampling depth will be the initial depth that is sampled.
7. Page 21 "Analytical Methods and Parameters" - It is stated that Cedar will use its onsite laboratory when possible for screening, but no mention is made anywhere else with regard to the purpose of such screening. Such screening does not appear to be necessary for the purpose of demonstrating clean closure.
8. Page 23 "Contingent Closure Plan" - The proposed "flexible cleanup" alternatives based on a site-specific risk assessment and installation of a RCRA cap is not allowed under RCRA regulations. All hazardous constituents in and around the unit must either be removed to achieve the cleanup levels discussed above, or the unit must be redefined as a landfill, undergo post-closure, and obtain a post-closure permit. In the is case, installation of a groundwater monitoring system for the unit would also be

required.

9. What is the intended future use of the storage areas? If the existing sumps are going to be active after closure, every effort should be made to ensure that any holes in the concrete are properly sealed so that future contaminant migration is minimized. This situation can be avoided if angle borings are taken to collect samples from under the sumps, rather than drilling through the sumps.
10. It is required that Cedar Chemical give ten (10) days notice to the MDEQ prior to commencement of the work activities so that split samples may be taken to help verify the results.

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

CERTIFIED # P-961 293 711

REPLY TO: P.O. BOX 821003  
VICKSBURG, MS 39182  
(601) 636-1231

September 18, 1992

Ms. Jeaneanne Gettle  
Waste Compliance Section  
RCRA and FF Branch  
U. S. EPA Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Mr. Steve Spengler  
Chief RCRA TSD Branch  
Mississippi Department of  
Environmental Quality  
P. O. Box 10385  
Jackson, Mississippi

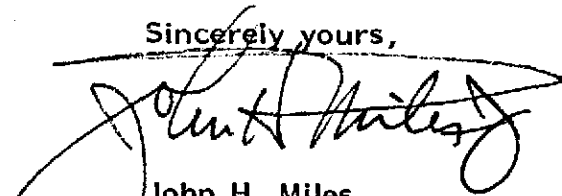


Re: Cedar Chemical Corporation  
MSD 990714081  
Consent Decree W92-0008(B)  
Change of Project Coordinator for Cedar

Dear Ms. Gettle and Mr. Spengler:

As required by Paragraph X111(C) of the referenced Consent Decree, this is to notify you that Cedar's Project Coordinator, Steve Boswell, is leaving his employment with Cedar to resume work on an environmental engineering degree in Florida. His last day at Cedar will be Monday, September 28, 1992. Thereafter, and until further notice, Fred Ahlers, who formerly served as Plant Manager at Cedar's Vicksburg Plant, will serve as Project Coordinator.

Sincerely yours,



John H. Miles  
Plant Manager

JHM:dc

cc: John Bumpers  
Allen Malone  
File

7-sher

CEDAR CHEMICAL CORPORATION

rec'd  
6/15/92

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 821003  
VICKSBURG, MS 39182  
(601) 636-1231

VIA FEDERAL EXPRESS

Mr. Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
MS Dept. of Env. Quality  
P.O. Box 10385  
Jackson, MS 39209

June 9, 1992

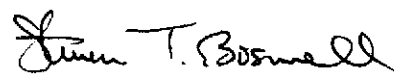
Re: Cedar Chemical Corporation, MSD 990714081  
Consent Decree and RCRA Facility Investigation  
Closure Plan, Hazardous Waste Container Management Area and  
Returned Product Storage Area

Dear Mr. Mabry:

Please find enclosed a copy of the referenced Plan as required by Section IV of the Decree (Civil No. W92-0008(B)). The proposed closure performance standards are based on assumptions that the Cedar facility will remain industrial in character and that exposure pathways to the maximally exposed individuals (Cedar employees) do not provide sufficient exposure to result in more than a one-in-ten-thousand non-cumulative risk.

Please contact Cedar Chemical with any comments or objections there may be.

Sincerely,



Steven T. Boswell  
Dir. of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Malone, Apperson, Crump  
Mr. Karkkainen, Woodward-Clyde

File

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 821003  
VICKSBURG, MS 39182  
(601) 636-1231

VIA FEDERAL EXPRESS

Mr. Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
MS Dept. of Env. Quality  
P.O. Box 10385  
Jackson, MS 39209

May 15, 1992

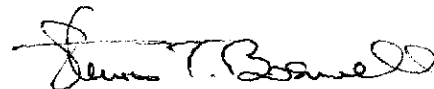
Re: Cedar Chemical Corporation, MSD990714081  
Consent Decree and RCRA Facility Investigation  
Interim Measures Workplan and Description of  
Current Conditions

Dear Mr. Mabry:

Please find enclosed a copy of the referenced Reports as required by Section VII of the Decree and related Scopes of Work. Appendix "E" is an included volume pertaining the Surface Impoundment Retrofit of the Cedar Chemical "South Pond", an dis required by the Interim Measures Scope of Work.

Please contact Cedar Chemical with any comments or objections there may be.

Sincerely,



Steven T. Boswell  
Dir. of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Malone, Apperson, Crump  
Mr. Karkkainen, Woodward-Clyde

File

**CEDAR CHEMICAL CORPORATION**

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 821003  
VICKSBURG, MS 39182  
(601) 636-1231

APR 23 1992

DEPARTMENT OF  
ENVIRONMENTAL QUALITY

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 278

Mr. Sam Mabry, Chief  
Hazardous Waste Division  
Bureau of Pollution Control  
MS Dept. of Env. Quality  
P.O. Box 10385  
Jackson, MS 39209

April 23, 1992

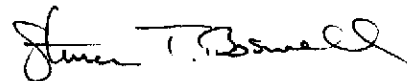
Re: Cedar Chemical Corporation, MSD990714081  
Consent Decree and RCRA Facility Investigation  
Notification of Intention to Select Contractor Laboratory

Dear Mr. Mabry:

Please find attached a copy of the letter sent to Mr. John Dickinson at USEPA, Region IV, informing of Cedar's intent to select Analytical Technologies, Inc., as Cedar's contractor laboratory for the RCRA Facility Investigation.

Please contact Cedar if there are any comments or objections to this selection.

Sincerely,



Steven T. Boswell  
Dir. of Env. Affairs

STB: pc



# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 821003  
VICKSBURG, MS 39182  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 277

Mr. John Dickinson, Chief  
Waste Compliance Section  
RCRA and FF Branch  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

April 23, 1992

Re: Cedar Chemical Corporation, MSD990714081  
Consent Decree and RCRA Facility Investigation  
Notification of Intention to Select Contractor Laboratory

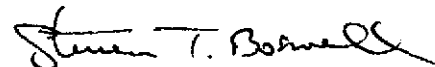
Dear Mr. Dickinson:

As required by Section IX., Quality Assurance, Quality Control and Sampling, of the recently effective Consent Decree between the USEPA and Cedar Chemical Corporation, Cedar intends to select Analytical Technologies, Inc., 11 East Olive Road, Pensacola, Florida 32514, telephone number 1-(904)-474-1001, to be its contractor laboratory for chemical analyses to be performed as required under the Decree.

Cedar will furnish Analytical Technologies with a copy of the Decree as required, and require by contract that Analytical Technologies abide by the requirements of the Decree including the requirements of Section IX.

Please contact Cedar with any comments or objections you may have concerning this selection.

Sincerely,



Steven T. Boswell  
Dir. of Env. Affairs

STB: pc

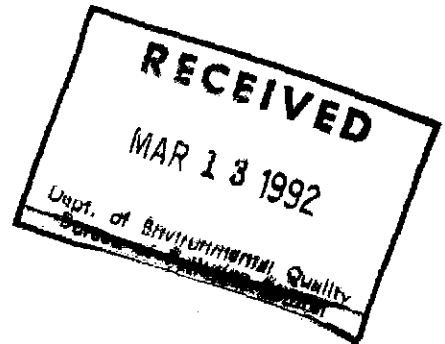
xc: Mr. Miles  
Mr. Madsen  
Mr. Malone, Apperson, Crump  
Mr. Karkkainen, Woodward-Clyde  
Ms. Michelotti, ATI



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365



MAR 10 1992

4WD-RCRA/FF

Mr. Wm. Stephen Spengler, P.E.  
Chief, RCRA Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39289-0385

Re: Cedar Chemical RFA  
EPA ID# MSD 990 714 081

Dear Mr. Spengler:

Enclosed please find a copy of the draft RCRA Facility Assessment of Cedar Chemical Corporation, Vicksburg, Mississippi, currently under review by the U.S. Environmental Protection Agency. Please check this document for consistency with your knowledge of the facility. Your comments or questions are welcome and should be directed to Dann Spariosu at (404) 347-7603.

Sincerely yours,

Jeaneanne M. Gettle, Chief  
West Unit  
RCRA Compliance Section

Enclosure

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 254

Mr. John Taylor  
Environmental Engineer  
MS Dept. of Env. Quality  
2380 U.S. Highway 80 West  
Jackson, MS 39204

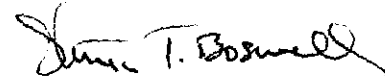
February 10, 1992

Re: Cedar Chemical Corporation  
Hazardous Waste Drum Storage Area  
Closure Plan

Dear Mr. Taylor:

As I mentioned in our discussions, Friday, February 7, 1992, Cedar Chemical, by this letter, withdraws its proposed closure plan for the Hazardous Waste Drum Storage Area. As the Consent Decree between Cedar and USEPA will become effective shortly, Cedar believes that it is appropriate to proceed under the auspices of that Instrument. Cedar will resubmit the plan as required by the Decree.

Sincerely,



Steven T. Boswell  
Dir. of Env Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Malone  
Mr. Karkkainen

*Rec 2/11/92*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

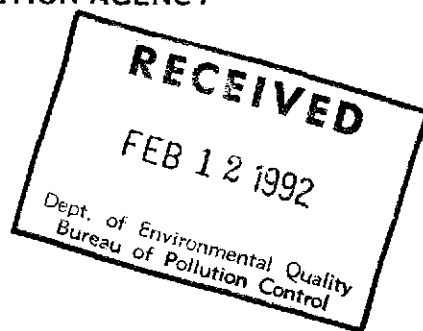
REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

FEB - 7 1992

4WD-RCRA/FF

Mr. Steve Spengler, Chief  
RCRA Branch  
Mississippi Department of Environmental Quality  
Post Office Box 10385  
Jackson, Mississippi 39209



Re: Comments on Closure Plan for the Hazardous Waste Container  
Storage Area and Off-Specification Product Storage Area  
Cedar Chemical Corporation, Vicksburg, Mississippi  
EPA I.D. Number MSD 990 714 081

Dear Mr. Spengler:

In response to a request from MSDEQ, EPA provided comments dated August 19, 1991, to MSDEQ on the "Hazardous Waste Container Storage Area, Off-Specification Product Storage Area, South Plant" closure plan for Cedar Chemical Corporation. These comments included comments generated by the RCRA Permitting Section and the Environmental Services Division.

Woodward-Clyde Consultants (WCC), on behalf of Cedar, submitted a revised closure plan with response to comments to MSDEQ dated December 3, 1991. In this response, WCC, on behalf of Cedar Chemical Company, disputed EPA's comments on use of  $1 \times 10^{-6}$  as a health-based cleanup goal and analysis of hydroblast water as an indication that the cleanup goals have been achieved. In addition, WCC indicated that "Cedar would prepare a flexible cleanup based on actual exposure and actual intended land use based on results of data obtained by sampling and analysis . . ." if clean closure could not be achieved in accordance with the approved closure plan.

On December 18, 1991, MSDEQ contacted EPA by phone, requesting technical assistance with regard to use and calculation of health-based cleanup values for the above mentioned storage areas, because a meeting with Cedar was to be held later that day. MSDEQ was informed that the facility should be required to clean up the storage areas such that the cumulative carcinogenic risk posed by hazardous constituents in the soil, did not exceed  $1 \times 10^{-6}$ , based on standard exposure assumptions and methodology specified in the RFI Guidance. Use of this risk number was supported by the location of residential housing adjacent to the site.

Since that time, EPA has received a copy of a revised "Methodology for Calculation of Cleanup Criteria" containing WCC and Cedar's argument for the use of  $1 \times 10^{-4}$  cancer risk as the cleanup standard for each constituent at the storage area. This document was sent

to the EPA by both Cedar and MSDEQ, requesting further discussion of Cedar's proposal.

WCC is apparently attempting to apply CERCLA standards for remedial decisionmaking and risk assessment to clean closure of container storage units which are regulated under RCRA. Since clean closure requires removal or decontamination of all hazardous waste and waste residues, use of conservative risk-based concentration limits is justified in order to demonstrate that all hazardous waste has been removed from the storage units.

Based on a brief review of the revised closure plan and WCC's response to EPA comments, the following additional comments are offered.

1. Page 4 - Reference to and use of Superfund guidance and policy documents for the purpose of demonstrating clean closure under RCRA is not acceptable. As stated previously, the closure standard must be based on health-based soil concentrations which do not result in a cumulative carcinogenic risk greater than  $1 \times 10^{-6}$  using the most current Carcinogen Slope Factors (which are not necessarily the same as those from the RFI Guidance or the proposed Subpart S Rule), and standard exposure assumptions which are provided in the RFI Guidance. These standard exposure assumptions must also be used when calculating the hazard index for systemic toxicants.

To achieve clean closure, hazardous waste and waste residue must be removed or decontaminated. To make this demonstration, concentrations of hazardous constituents remaining in the storage area must be below health-based levels, since these levels are used to indicate whether or not hazardous waste is still present in the unit. EPA sees no reason to deviate from this policy.

2. Page 5 - The closure plan makes reference to "instances where analysis of hydroblast water is indicative of residual concentrations." EPA does not agree that analysis of hydroblast water could be substituted for direct sampling and analysis of the concrete to be left in place. The facility should consider wipe-testing the concrete to determine whether the closure standard has been met, rather than analysis of the total constituent concentrations or analysis of the hydroblast water. Cleanup standards for use with this type of analysis should be proposed by the facility.
3. Page 6 - Toxaphene was omitted from the list of constituents to be analyzed for in the sample "containing bits of plastic sheeting, dislodged concrete, and any other solids generated during the decontamination operations. . .".
4. Page 8 - The plan specifies that holes will be made in the

concrete to allow for soil sampling beneath the concrete pads. The closure plan states that "in the event that clean closure criteria are not met, soil removal and additional sampling would be required". Contaminated Soil Removal is addressed on Page 7, but there is no indication of the extent of concrete or soil excavation to be performed.

5. Page 8 - OSWER 9476-00-8.C (Draft Surface Impoundment Clean Closure Guidance Document) is referenced to support the number of sampling points chosen. References should not be made to documents which have not been finalized or officially released outside of the agency. Furthermore, the unit to be closed is a container storage area, not a surface impoundment.
6. Page 8 - Since sample points have been selected to be collected from areas where the concrete pad is cracked, consideration should be given as to whether or not sample points should also be located around the perimeter of the unit where there may have been contaminated runoff of the pad, or curbing may have been breached.
7. Page 8 - Although the closure plan states that the "mobility of pesticides in soil underneath the concrete will be limited," specifications from some of the formulations indicate that some of the products stored in these areas were infinitely soluble in water, and as such have the potential to be more mobile than some of the pesticides in their pure form. Based on this observation, it appears that a six-inch sampling depth would be insufficient, especially since the units were in operation for 10 years.
8. Page 9 - The following statement is made: "The Data Collection Plan and Data Management Plan are attached as Appendix D and E." It is not clear that Cedar intends to follow these plans, especially since they are stamped "Draft", and are not referenced in any other manner. Outside of these plans, no information is provided with regard to quality assurance sampling, such as collection and analysis of rinsate blanks, trip blanks, etc. Furthermore, soil sampling proposed in the closure plan (six inch samples) does not agree with soil sampling procedures in the Data Collection Plan (12 inch samples).
9. Page 11 - It is stated that Cedar will use its onsite laboratory when possible for screening, but no mention is made anywhere else with regard to the purpose of such screening. Such screening does not appear to be necessary for the purpose of demonstrating clean closure.
10. Page 13 - The proposed "flexible cleanup" alternative, based on a site-specific risk assessment and installation of a RCRA cap is not allowed under RCRA regulations. All hazardous

constituents in and around the unit must either be removed to achieve the cleanup levels discussed above, or the unit must be redefined as a landfill, undergo post-closure, and obtain a post-closure permit. In this case, installation of a groundwater monitoring system for the unit would also be required.

11. What is the intended future use of the storage areas? If the existing sumps are going to be active after closure, every effort should be made to ensure that any holes in the concrete are properly sealed so that future contaminant migration is minimized. This situation can be avoided if angle borings are taken to collect samples from under the sumps, rather than drilling through the sumps.
12. It is strongly recommended that the plan include provisions for notification of the State prior to sampling activities so that MDEQ can collect and analyze split samples from the regulated units during closure.

In the comments presented above, and in previous comments, EPA has made recommendations regarding general aspects of the closure plan, health-based cleanup levels, and application of those cleanup levels. We strongly encourage the State to incorporate, as appropriate, EPA comments into a single response from the State to avoid any confusion the facility may have as to which agency has regulatory authority. This will also help prevent facilities from directly contacting EPA to resolve issues and discuss recommendations EPA provides to the State.

EPA sees no reason to allow cleanup standards less stringent than those originally proposed. Assuming that the State is in agreement with this, the facility has no grounds to argue the above determinations, and must comply with standards issued by the regulatory agency. If the closure plan is not revised to reflect appropriate clean-up standards, then it is recommended that Mississippi place the plan on public notice and approve it with modifications to ensure that a protective closure is achieved.

If you have any questions regarding this matter, please contact Elizabeth Ketcham of the RCRA Permitting Section at (404)347-3433.

Sincerely yours,



G. Alan Farmer  
Chief, RCRA Branch  
Waste Management Division

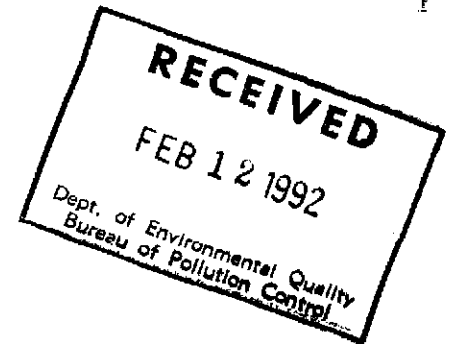


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

FEB - 7 1992  
4WD-RCRA/FF



Mr. Steven T. Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation  
Post Office Box 3  
Vicksburg, Mississippi 39181

Re: Closure Plan for the Hazardous Waste Container Storage Area  
and Off-Specification Product Storage Area  
Cedar Chemical Corporation, Vicksburg, Mississippi  
EPA I.D. Number MSD 990 714 081

Dear Mr. Boswell:

EPA has received both the revised closure plan referenced above and the revised "Methodology for Calculation of Cleanup Criteria." These documents have been reviewed by EPA for the purpose of providing technical assistance to the Mississippi Department of Environmental Quality (MDEQ). MDEQ is authorized to implement the base RCRA program in lieu of EPA, and therefore has full authority to make all final decisions regarding issues such as permitting and closure of RCRA-regulated units.

Comments on general aspects of the closure plan, health-based cleanup levels, and application of those cleanup levels have been sent to MDEQ. EPA sees no reason to deviate from the closure standard based on health-based soil concentrations which do not result in a cumulative carcinogenic risk greater than  $1 \times 10^{-6}$  using the standard exposure assumptions.

If you have any further questions regarding the above information, please direct them to Mr. John Taylor of the Mississippi Department of Environmental Quality. If necessary, he will contact EPA for further technical assistance.

Sincerely yours,

G. Alan Farmer  
Chief, RCRA Branch  
Waste Management Division

cc: Mr. Steve Spengler, MDEQ  
Mr. John Taylor, MDEQ



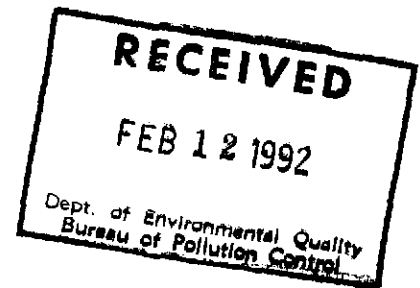


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If you have any further questions regarding the above information, please direct them to Mr. John Taylor of the Mississippi Department of Environmental Quality. If necessary, he will contact EPA for further technical assistance.

Sincerely yours,

G. Alan Farmer  
Chief, RCRA Branch  
Waste Management Division

cc: Mr. Steve Spengler, MDEQ  
Mr. John Taylor, MDEQ

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 238

Mr. John Taylor  
Environmental Engineer  
Mississippi Department of Environmental Quality  
2380 Highway 80 West  
Jackson, MS 39204

December 9, 1991

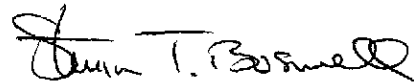
Re: Cedar Chemical Corporation, MSD990714081  
Hazardous Waste Container Storage Area  
Off-Specification Product Storage Area  
Closure Plan

Dear Mr. Taylor:

Please find accompanying this letter the revised closure plan requested by your letter of November 7, 1991. It is Cedar's intent to use high pressure water cleaning on the surfaces of the two areas, followed by sampling to determine if residual levels of constituents are below the health-based criteria to meet the closure performance standard.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Karkkainen, Woodward-Clyde

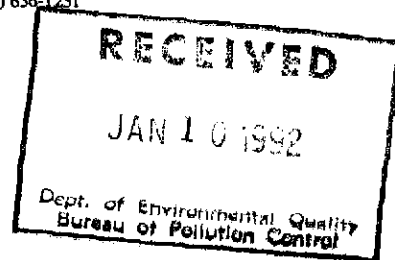
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REPLY TO: P.O. BOX 3  
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CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 247

Mr. John Taylor  
Environmental Engineer  
Mississippi Department of Environmental Quality  
2380 Highway 80 West  
Jackson, MS 39204



January 9, 1992

Re: Cedar Chemical Corporation, MSD990714081  
Hazardous Waste Container Storage Area  
Off-Specification Product Storage Area  
Closure Plan

Dear Mr. Taylor:

Please find accompanying this letter a revised version of the "Methodolgy for Calculation of Cleanup Criteria" that should replace the section in the original Plan submitted to your office. A copy of this letter and attachment is being sent to Ms. Elizabeth Ketchum of USEPA, Region IV.

If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Karkkainen, Woodward-Clyde

2822 O'Neal Lane  
Post Office Box 66317  
Baton Rouge, Louisiana 70896  
(504) 751-1873  
FAX (504) 753-3616

## Woodward-Clyde Consultants

January 7, 1992

Mr. Steve Boswell  
Cedar Chemical Corporation  
Post Office Box 821003  
Rifle Range Road  
Vicksburg, Mississippi 39182-1003

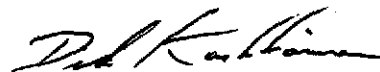
Dear Steve:

Attached is a revised version of the "Methodology For Calculation of Cleanup Criteria". It differs from the original version as follows:

- Dr. Brad Droy corrected the calculation error made by June Sutherlin, and
- the arguments we discussed during our 12/26/91 meeting emphasizing  $1.0 \times 10^{-4}$  cancer risk are incorporated.

Please send a copy to any of the agencies that have the Drum Storage Closure Plan.

Very truly yours,



Dick Karkkainen  
RDK/lb

cc: Allen Malone  
Randal Tomblin  
Fred Ahlers  
David Madsen



## METHODOLOGY FOR CALCULATION OF CLEANUP CRITERIA

The development of site-specific health-based remedial goals is based on the health risk assessment process in accordance with EPA Risk Assessment Guidelines for Superfund (RAGS). Remedial goals for the identified constituents of potential concern are obtained through backcalculation of health risk estimation calculations.

### CALCULATIONS OF CANCER RISK

The calculation of cancer risk is herein summarized. In the calculation of potential carcinogenic health risk at a site, the concentration of constituent in the medium (Column A) is multiplied by a receptor specific intake factor (Column B) to obtain the lifetime average daily intake of chemical (Column C) for the receptor. To estimate cancer risk (Column E) the daily intake (Column C) is multiplied by the slope factor (Column D).

| Chemical<br>Concentration<br>(mg/kg) | Intake Factor<br>(kg/kg/day) | Lifetime<br>Average Daily<br>Intake<br>(mg/kg/day) | Slope Factor<br>(mg/kg/day) <sup>-1</sup> | Cancer Risk |
|--------------------------------------|------------------------------|----------------------------------------------------|-------------------------------------------|-------------|
| A                                    | B                            | C                                                  | D                                         | E           |

$$\text{Daily Intake} = (\text{Chemical Concentration}) (\text{Intake Factor})$$

$$C = (A) (B)$$

$$\text{Cancer Risk} = (\text{Slope Factor}) (\text{Lifetime Average Daily Intake})$$

$$E = (D) (C)$$

# **CALCULATION OF NONCARCINOGENIC HEALTH EFFECTS (HAZARD QUOTIENT)**

The calculation of the potential for noncarcinogenic health effects, called the hazard quotient, is summarized as follows. The calculation is similar to the calculation for carcinogens. The concentration of the constituent in the medium (Column A) is multiplied by a receptor specific intake factor (Column B) to obtain the average daily intake of chemical (Column C) for the receptor. To estimate the hazard quotient (Column E), the daily intake (Column C) is multiplied by the reciprocal of the reference dose (Column D).

| Chemical<br>Concentration<br>(mg/kg) | Intake Factor<br>(kg/kg/day) | Average Daily<br>Intake<br>(mg/kg/day) | RfD<br>(mg/kg/day) | Hazard<br>Quotient |
|--------------------------------------|------------------------------|----------------------------------------|--------------------|--------------------|
| A                                    | B                            | C                                      | D                  | E                  |

$$\text{Average Daily Intake} = (\text{Intake Factor}) (\text{Chemical Concentration})$$

$$C = (B) (A)$$

$$\text{Hazard Quotient} = \frac{\text{Daily Intake}}{1} \frac{1}{\text{RfD}}$$

$$E = C \frac{1}{D}$$

## **CLEANUP CRITERIA CALCULATIONS FOR CARCINOGENS**

To derive site-specific concentrations in a medium that are protective of human health, the calculations presented above are reversed. For carcinogens, an acceptable cancer risk level is designated (Column E) and divided by the slope factor (Column D) to yield the acceptable daily chemical intake (Column C). The acceptable lifetime average daily intake (Column C) is then divided by the intake factor (Column B) to obtain an

acceptable concentration of chemical in the medium; i.e., a chemical-specific cleanup goal (Column A).

| Acceptable<br>Cancer<br>Risk | Slope Factor<br>(mg/kg/day) <sup>-1</sup> | Lifetime<br>Average Daily<br>Intake<br>(mg/kg/day) | Intake Factor<br>(kg/kg/day) | Chemical<br>Concentration<br>mg/kg |
|------------------------------|-------------------------------------------|----------------------------------------------------|------------------------------|------------------------------------|
| E                            | D                                         | C                                                  | B                            | A                                  |

$$\text{Acceptable Lifetime Average Daily Intake} = \frac{\text{Acceptable Cancer Risk}}{\text{Slope Factor}}$$

$$C = \frac{E}{D}$$

$$\text{Acceptable Chemical Concentrations} = \frac{\text{Acceptable Lifetime Average Daily Intake}}{\text{Intake Factor}}$$

$$A = \frac{C}{B}$$

#### **CLEANUP CRITERIA CALCULATIONS FOR NONCARCINOGENS**

For noncarcinogenic constituents, the hazard quotient (Column E) is assigned an acceptable value which is multiplied by the reference dose (Column D) to yield the acceptable average daily chemical intake (Column C). The acceptable daily chemical intake is divided by the intake factor (Column B) to obtain the acceptable concentration of chemical in the medium; i.e., a chemical-specific cleanup goal (Column A).

| Acceptable<br>Hazard<br>Quotient | RfD<br>(mg/kg/day) | Average Daily<br>Intake<br>(mg/kg/day) | Intake Factor<br>(kg/kg/day) | Acceptable<br>Chemical<br>Concentration<br>mg/kg |
|----------------------------------|--------------------|----------------------------------------|------------------------------|--------------------------------------------------|
| E                                | D                  | C                                      | B                            | A                                                |

*Acceptable Average Daily Chemical Intake = (Acceptable Hazard Quotient) (RfD)*

$$C = (E) (D)$$

$$\text{Acceptable Chemical Concentration} = \frac{\text{Acceptable Average Daily Chemical Intake}}{\text{Intake Factor}}$$

$$A = \frac{C}{B}$$

Cleanup goals are usually governed by potential carcinogens found onsite although cleanup goals for noncarcinogenic compounds may also be evaluated. Where toxicity values for the evaluation of both carcinogenic and noncarcinogenic health effects are available, cleanup criteria were calculated for both and cleanup criteria will be established based on the more conservative chemical concentration calculated.

## **TARGET CANCER RISKS**

An acceptable level of potential cancer risk is selected after evaluation of site variables including the types and activities of receptors on or near the site, types of potential exposures, the inherent toxicity of chemicals found on or near the site, and the EPA guidelines governing remedial goals and risk management decisions (OSWER Directive 9355.0-30).



A noncumulative potential cancer risk of  $1 \times 10^{-4}$  has been selected for the site. This level of potential risk has been selected based on the following:

- The areas are currently abandoned and access is restricted.
- Future site use will be industrial/commercial.
- Topographic analysis indicates that potential exposure to residential receptors is not likely to occur.
- Potential future exposures will be transient and related primarily to the duration and frequency with which workers are on-site.
- The potential carcinogens on the site are known to induce unrelated target organ-specific effects, therefore potential carcinogenicity should not be treated as additive.
- EPA guidelines state that for the calculation of cleanup goals for known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of  $10^{-4}$  (EPA OSWER Directive 9355.0-30).

#### **TARGET HAZARD QUOTIENT**

A target potential hazard quotient of 1 has been selected for the development of soil cleanup criteria at the former pesticide facility. A hazard quotient less than 1 represents an exposure level that is without adverse health effects in exposed populations (EPA RAGS).

## **SPECIFIC CALCULATIONS FOR CEDAR - CARCINOGENS**

Based on the assumptions noted above, an intake factor is calculated:

$$\begin{aligned}
 \text{Intake Factor} &= \frac{(IR)(EF)(ED)(ME)(FI)(CF)(SS)}{(BW)(AT)} \\
 &= \frac{(50 \text{ mg/day})(250 \text{ days/yr})(25 \text{ years})(1 \times 10^{-6} \text{ kg/mg})}{(70 \text{ kg})(365 \text{ days/yr} \times 70 \text{ years})} \\
 &= 1.74 \times 10^{-7} \text{ kg/kg/day}
 \end{aligned}$$

where: IR = Ingestion rate (mg soil/day)  
 50 mg/day (OSWER Directive 9285.6-0.3, "Standard Default Exposure Factors", 3/25/91)

FI = Fraction ingested from contaminated source (unitless)  
 Pathway-specific value (should consider contaminant location and population activity patterns); assume FI = 1

EF = Exposure frequency (days/year)  
 250 workdays/year at Cedar

ED = Exposure duration (years)  
 25 years for Cedar workers

CF = Conversion factor ( $10^{-6}$  kg/mg)

BW = Body weight (kg)  
 70 kg (adult, average; EPA 1989d)

AT = Averaging time (period over which exposure is averaged, days)  
Pathway-specific period of exposure for noncarcinogenic effects  
(i.e., ED x 365 days/year), and 70-year lifetime for carcinogenic  
effects (i.e., 70 years x 365 days/year)

ME = Matrix effect; use 1

SS = Site-specific factor; assume 1

The following table is then prepared from calculations of noncumulative carcinogenic exposure:

| Acceptable<br>Concentration<br>in Soil<br>(ppm or mg/kg) |           | Intake<br>Factor<br>(kg/kg/day) | Acceptable<br>Lifetime<br>Average<br>Daily<br>Chemical<br>Intake<br>(mg/kg/day) | Oral Slope<br>Factor<br>(mg/kg/day <sup>1</sup> ) | Acceptable<br>Risk<br>Goal |
|----------------------------------------------------------|-----------|---------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------|----------------------------|
| Atrazine                                                 | 2,586 ppm | 1.74E-07                        | 4.5E-04                                                                         | 2.2E-01                                           | 10 <sup>-4</sup>           |
| Toxaphene                                                | 523 ppm   | 1.74E-07                        | 9.1E-05                                                                         | 1.1E+00                                           | 10 <sup>-4</sup>           |
| Arsenic                                                  | 328 ppm   | 1.74E-07                        | 5.7E-05                                                                         | 1.75E+00                                          | 10 <sup>-4</sup>           |

## **SPECIFIC CALCULATIONS FOR CEDAR - NONCARCINOGENS**

The intake factor is similar to the carcinogen calculation except that AT = (365 days/yr x 25 years).

$$\begin{aligned}
 \text{Intake Factor} &= \frac{(IR)(EF)(ED)(ME)(FI)(CF)(SS)}{(BW)(AT)} \\
 &= \frac{(50 \text{ mg/day})(250 \text{ days/yr})(25 \text{ years})(1 \times 10^{-6} \text{ kg/mg})}{(70 \text{ kg})(365 \text{ days/yr} \times 25 \text{ years})} \\
 &= 4.89 \times 10^{-7}
 \end{aligned}$$

The following table is then prepared from calculations of noncumulative noncarcinogenic exposure:

| Acceptable<br>Concentration<br>in Soil<br>(ppm or mg/kg) |             | Intake<br>Factor<br>(kg/kg/day) | Acceptable<br>Average<br>Daily<br>Chemical<br>Intake<br>(mg/kg/day) | Oral<br>RfD<br>(mg/kg/day) | Acceptable<br>HQ<br>Goal |
|----------------------------------------------------------|-------------|---------------------------------|---------------------------------------------------------------------|----------------------------|--------------------------|
| Atrazine                                                 | 10,225 ppm  | $4.89 \times 10^{-7}$           | 5E-03                                                               | 5E-03                      | 1                        |
| Dinoseb                                                  | 2,045 ppm   | $4.89 \times 10^{-7}$           | 1E-03                                                               | 1E-03                      | 1                        |
| Arsenic                                                  | 2,045 ppm   | $4.89 \times 10^{-7}$           | 1E-03                                                               | 1E-03                      | 1                        |
| Toluene                                                  | 613,497 ppm | $4.89 \times 10^{-7}$           | 3E-01                                                               | 3E-01                      | 1                        |

## **CONCLUSIONS**

The calculated acceptable soil concentrations are lower for carcinogens than for noncarcinogens for atrazine and arsenic. Therefore, the carcinogen-based soil concentration for these chemicals will be used in order to be conservative. Based on the

carcinogen and noncarcinogen calculations for the five chemicals of concern, the following soil concentrations are initially proposed for remediation:

| Chemical  | Soil Remediation Concentration |
|-----------|--------------------------------|
| Atrazine  | 2,586 ppm                      |
| Arsenic   | 328 ppm                        |
| Dinoseb   | 2,045 ppm                      |
| Toluene   | 613,497 ppm                    |
| Toxaphene | 523 ppm                        |

However, in order to be more conservative, we propose to use EPA-based cleanup levels for potential contaminants for which guidance soil concentrations have been published. Therefore, for site closure, we propose the following cleanup soil concentrations:

| Chemical  | Soil Remediation Concentration |
|-----------|--------------------------------|
| Atrazine  | 2,586 ppm                      |
| Arsenic   | 80 ppm <sup>1</sup>            |
| Dinoseb   | 80 ppm <sup>2</sup>            |
| Toluene   | 613,497 ppm                    |
| Toxaphene | 60 ppm <sup>3</sup>            |

<sup>1</sup> Federal Register (July 27, 1990), Appendix A.

<sup>2</sup> RCRA Facility Investigation Guidance Document, Volume 1, Table 8-7.

<sup>3</sup> Federal Register (July 27, 1990), Appendix C.

However, toluene is dropped from the final remediation list due to the low relative toxicity concern compared to the other chemicals of concern at the site and the likelihood that toluene residues should be present in very minor quantities in the medium of concern (soil).

The potential cancer risks and hazard quotients associated with these cleanup goals were recalculated and are presented as follows:

| Chemical  | Soil Remediation Concentration | Cancer Risk          | Hazard Quotient |
|-----------|--------------------------------|----------------------|-----------------|
| Atrazine  | 2,586 ppm                      | $1.0 \times 10^{-4}$ | 0.25            |
| Arsenic   | 80 ppm                         | $2.4 \times 10^{-5}$ | 0.04            |
| Dinoseb   | 80 ppm                         | *NA                  | 0.04            |
| Toxaphene | 60 ppm                         | $2.0 \times 10^{-6}$ | *NA             |

\* Not Applicable.

For noncarcinogens, the potential hazard should be viewed as additive since dinoseb, atrazine and possibly arsenic are known to induce some form of reproductive toxicity. The cumulative hazard index (sum of the hazard quotients) is less than 1.0 (0.33), which indicates that cleanup goals should be protective of noncarcinogenic toxicity in humans assuming additivity of effects. The hazard index (0.33) is well below the maximum hazard index (1.0) that would indicate potential cumulative toxicity. Therefore, it is not believed that cleanup goals will be governed by noncarcinogenic toxicity at this site.

In regard to carcinogens, potential carcinogenicity at the site should not be treated as additive since the potential carcinogens are known to induce unrelated target organ-specific effects. For instance, arsenic targets the skin and lung, whereas atrazine targets mammary glands and toxaphene limits its effects to the liver and thyroid gland. The use of EPA-recommended soil cleanup concentrations reduced the cancer risks due to the presence of arsenic and toxaphene to the  $10^{-5}$  and  $10^{-6}$  range, respectively. Soil remediation efforts based on calculated and EPA-recommended concentrations will produce potential cancer risks in the  $10^{-4}$  to  $10^{-6}$  range for all site-related carcinogens. A  $10^{-4}$  to  $10^{-6}$  risk level should be acceptable for an industrial site in which residential exposure is expected to be minimal (55 FR 30798; July 27, 1990).



U.S. Department of Justice

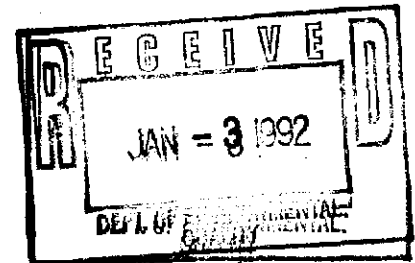
JCC:KSD  
90-7-1-463

Washington, D.C. 20530

January 2, 1992

VIA FEDERAL EXPRESS

William Stephen Spengler, Chief  
RCRA Section  
Department of Environmental Quality  
Office of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209



Re: Complaint against Cedar Chemical Corporation

Dear Mr. Spengler:

This is to notify you that the United States intends to file a complaint against Cedar Chemical Corporation under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., arising from releases of hazardous waste and hazardous waste constituents at the Cedar Chemical Corporation facility on Rifle Range Road, in Vicksburg, Mississippi. This notice is provided to you pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

The complaint alleges that there have been releases of hazardous waste and hazardous waste constituents at the facility in connection with Cedar Chemical's operations at the site. Cedar Chemical operated a container storage area that was a facility for the treatment, storage or disposal of hazardous waste within the meaning of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a). Cedar operated the facility under interim status until on or about August 10, 1983. At that time, Cedar submitted an amended Part A application, deleting the container storage area from the application, claiming that it no longer needed interim status or a final permit for the container storage area because the area was exempt from the permitting requirements under 40 C.F.R. § 262.34. However, as the complaint alleges, Cedar did not fulfill the 90-day storage exemption requirements of 40 C.F.R. § 262.34 so as to exempt the container storage area from the permitting requirements of RCRA. Thus, the company lost interim status and was required to close the container storage area. The complaint further alleges Cedar is required pursuant to Section 3008(h) of RCRA to perform corrective action at the

site. The complaint seeks an order requiring Cedar to close the container storage area and perform corrective action at the site.

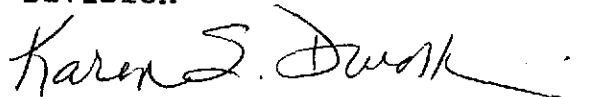
The parties have negotiated a settlement of this matter, and a consent decree will be lodged with the court at the time the complaint is filed. Under the consent decree, Cedar is required to close the drum storage area. Cedar must also develop and implement a corrective action plan at the site in accordance with the scopes of work attached to an incorporated in the consent decree.

If you have any question regarding this matter, please feel free to call me at (202) 514-2778. You can also contact Zylpha Pryor-Bell, the Assistant Regional Counsel responsible for this case at EPA Region IV, at (404) 347-2641 (ext. 2283).

Sincerely,

Acting Assistant Attorney General  
Environment and Natural Resources  
Division

By:



Karen S. Dworkin  
Attorney, Environmental  
Enforcement Section

cc: Zylpha Pryor, Esquire



# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

HAND DELIVERED

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

Mr. John Taylor  
Environmental Engineer  
Mississippi Department of Environmental Quality  
2380 Highway 80 West  
Jackson, MS 39204

December 31, 1991

Re: Cedar Chemical Corporation  
Drum Storage Area Closure Plan

Dear Mr. Taylor:

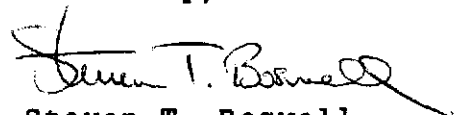
As we discussed by telephone today, attached is a copy of the recently submitted closure plan for the Cedar Chemical Hazardous Waste Drum Storage Area. This copy was requested by Ms. Elizabeth Ketcham of USEPA, Region IV, and you have indicated you will forward it to her.

Also as we have discussed, Cedar seeks to have approved closure performance standards at the  $10^{-4}$  risk level due to the present (and probable future) industrial setting of the site. At this time, you have indicated that MSDEQ and Region IV will require  $10^{-6}$  cumulative levels due to the proximity of residential areas. Cedar estimates the closest occupied dwelling to be 600 feet uphill and upwind. While this statement is certainly not a complete analysis of exposure pathways, Cedar desires to discuss further the possibility that  $10^{-4}$  levels can be appropriate for the site.

Cedar also desires to discuss the appropriateness of cumulative risk as different constituents may have affect target organs and effects may not be cumulative.

Please contact me with any questions concerning this matter,

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Miles  
Mr. Madsen  
Mr. Karkkainen, Woodward-Clyde  
Mr. Malone, Apperson, Crump, Duzane and Maxwell

Mr. Steven T. Boswell  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39180

Draft letter  
by TIF

Re: Additional Comments on the  
Closure Plan for the Hazardous  
Waste Container Storage Area and  
the Off-Specification Product  
Storage Area.

Dear Mr. Boswell,

Please find enclosed a copy of comments generated by U.S.E.P.A. Region IV based on their review of the above-referenced closure plan. These comments are in addition to those already made by this office and must be satisfactorily addressed prior to ADEQ approval of the closure plan.

This is the same list I previously mailed to you on August 19, 1991.  
Please submit a revised Closure Plan based on these comments within thirty (30) days. If you have any questions regarding this issue please contact Mr. ~~Fleming~~ John C. Taylor of this office at 961-5171.

Sincerely

John C. Taylor, Hazardous Waste Division  
~~John C. Taylor, P.E., Coordinator~~  
RCRA TSD Branch

Also, ~~regarding closure standards~~  
all ~~closure standards~~ have been recalculated and are <sup>now</sup> as follows:

|              | Soil      | hydroblast                |
|--------------|-----------|---------------------------|
| 1) Dioxin    | 700 mg/kg | 0.035 mg/l                |
| 2) Arsenic   | ?         | 0.050 mg/l                |
| 3) Toxaphene | 0.6 mg/kg | $3.2 \times 10^{-5}$ mg/l |
| 4) Atrazine  | 3.2 mg/kg | $1.6 \times 10^{-4}$ mg/l |

~~Assessment~~  
~~NC (0.001) (0.001) = 100 mg/kg~~

Copy EPA

# Department of Environmental Quality

## ENGINEERING CHART

SHEET NO. \_\_\_\_\_

OF \_\_\_\_\_

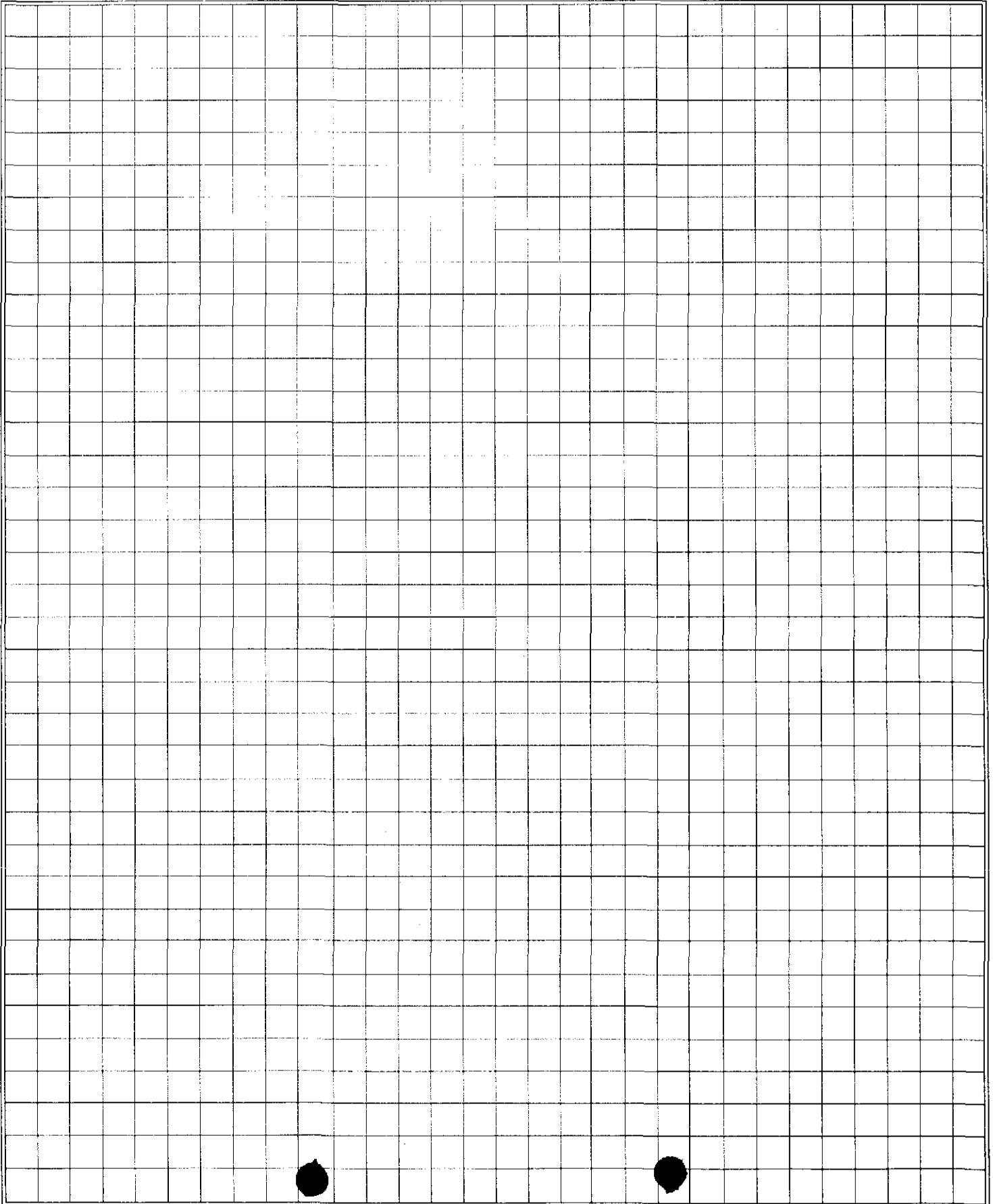
FILE \_\_\_\_\_

APPN \_\_\_\_\_

DATE \_\_\_\_\_

BY \_\_\_\_\_

SUBJECT \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



P 868 026 160

# Certified Mail Receipt

No Insurance Coverage Provided  
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(See Reverse)



|                                                             |    |  |
|-------------------------------------------------------------|----|--|
| Sent to                                                     |    |  |
| Street & No.                                                |    |  |
| P.O., State & ZIP Code                                      |    |  |
| Postage                                                     | \$ |  |
| Certified Fee                                               |    |  |
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| Return Receipt Showing to Whom & Date Delivered             |    |  |
| Return Receipt Showing to Whom, Date, & Address of Delivery |    |  |
| TOTAL Postage & Fees                                        | \$ |  |
| Postmark or Date                                            |    |  |

PS Form 3800, June 1990

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece next to the article number.

I also wish to receive the following services (for an extra fee):

- ☒ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Steven T. Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Ms 39180

4a. Article Number

P 868 026 160

4b. Service Type

- ☐ Registered ☐ Insured  
☒ Certified ☐ COD  
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

11-11-91 LW

5. Signature (Addressee)

6. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form 3811, October 1990

\* U.S. GPO: 1990-273-881

DOMESTIC RETURN RECEIPT



STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

November 7, 1991

CERTIFIED MAIL NO. P 868 026 160

Mr. Steven T. Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, MS 39180

Re: Additional Comments on Closure  
Plan for the Hazardous Waste  
Container Storage Area and the  
Off-Specification Product  
Storage Area

Dear Mr. Boswell:

Please find enclosed a copy of comments generated by U.S.E.P.A. Region IV based on their review of the above-referenced closure plan. This is the same list that Mr. Trey Fleming mailed to you on August 19, 1991. These comments are in addition to those already made by this office and must be satisfactorily addressed prior to MDEQ approval of the closure plan.

Also, all closure standards have been recalculated and are now as follows:

|              | <u>Soil</u> | <u>Hydroblast</u>         |
|--------------|-------------|---------------------------|
| 1) Dinoseb   | 80 mg/kg    | 0.008 mg/l                |
| 2) Arsenic   | 80 mg/kg    | 0.050 mg/l                |
| 3) Toxaphene | 0.6 mg/kg   | $3.2 \times 10^{-5}$ mg/l |
| 4) Atrazine  | 3.2 mg/kg   | $1.6 \times 10^{-4}$ mg/l |

Please submit a revised Closure Plan based on these comments within thirty (30) days of receipt of this letter. If you have any questions regarding this issue please contact Mr. John C. Taylor of this office at 961-5171.

Sincerely,

John C. Taylor  
Hazardous Waste Division

JCT:lfc

Enclosure

cc: Mr. James Scarbrough, EPA



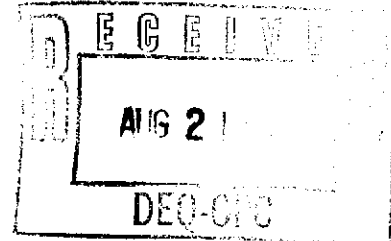
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

AUG 19 1991

4WD-RCRAFFB



Mr. Toby M. Cook, Coordinator  
RCRA TSD Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39209

Re: EPA Comments on Closure Plan  
Cedar Chemical Corporation  
Vicksburg, Mississippi  
EPA I.D. Number MSD 990 714 081

Dear Mr. Cook:

The Agency has reviewed the revised closure plan for the Hazardous Waste Drum Storage Area and Returned Product Storage Area at Cedar Chemical Corporation in Vicksburg, Mississippi, which was submitted to MDEQ on May 15, 1991.

Based on input from the Laboratory Evaluation and Quality Assurance Section of the Environmental Services Division, and review of the above document, the enclosed comments are offered for inclusion into a Notice of Deficiency for this document.

If you have any questions, please contact Elizabeth Ketcham of the Waste Engineering Section at (404)347-3433.

Sincerely yours,

James H. Scarbrough, P.E., Chief  
RCRA and Federal Facilities Branch  
Waste Management Division

Enclosure

COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081

| <u>LOCATION</u> | <u>COMMENT</u>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Page 2       | Response to Comments Comment 2.<br>Facility should have added a sample point rather than relocating from the side to the bottom of the sump.                                                                                                                                                                                                                                                                                                      |
| 2. Page 3       | <u>1.4 Description of Wastes Stored</u><br>This section should include an estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the facility in accordance with 40 CFR 265.112(b)(3).                                                                                                                                                                                                                         |
| 3. Page 4       | <u>2.0 CLOSURE PERFORMANCE STANDARD</u><br>The reference used in obtaining the performance standard for Atrazine should be documented in a manner similar to that used for the other constituents. According to the HEAST tables, Atrazine is a carcinogen in addition to being a systemic toxicant. The Carcinogenic Slope Factor is $2.2 \times 10^{-1}$ (mg/kg-day) <sup>-1</sup> . A MSDS for Atrazine should also be included with the plan. |
| 4.              | In order to demonstrate that the storage areas are clean, the facility must show through direct sampling, that each concrete surface has been decontaminated to health-based levels for each hazardous constituent present in any hazardous waste ever managed in the unit. Analysis of the hydroblast water is not sufficient, due to the potential for dilution and volatilization of hazardous constituents in the waste.                      |
| 5.              | According to the MSDS for "Potato Top Killer 300", toluene is present in the material, in addition to Dinoseb. Therefore, toluene should be addressed in all of the sampling and analysis sections of the plan.                                                                                                                                                                                                                                   |
| 6. Page 6       | <u>3.2 Pad and Equipment Decontamination</u><br>Since listed waste was stored on the storage pads, any residue or debris removed from the pad is considered to contain listed waste, and must be managed as hazardous waste, unless sampling shows that all hazardous constituents, for which the wastes are listed, are present below health-based levels. TC testing is not sufficient for material that contains listed hazardous waste.       |

COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081  
Page 2

| <u>LOCATION</u>                                     | <u>COMMENT</u>                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Page 6<br><i>Will be done</i>                    | <u>3.3 Contaminated Soil Removal</u><br>This section should be expanded to address how Cedar will determine when enough contaminated soil has been removed from a given area. Some allowance should be made for such areas to be re-sampled to verify that remaining soil is not contaminated above health-based levels. Additional soil should be excavated and re-sampled until the areas are shown to be clean. |
| 8. Pages 6-7                                        | <u>3.4.1 Water Sampling</u> (Comment from ESD)<br>Sampling procedures in this section, and in the following section on Soil Sampling, sample preservation procedures and holding times should be included.                                                                                                                                                                                                         |
| 9. Pages 7-8                                        | <u>3.4.2 Soil Sampling</u><br>A rationale for determining proposed sample locations should be provided in the plan to show that the number and depths of samples will be sufficient to demonstrate clean closure.                                                                                                                                                                                                  |
| 10.                                                 | Decontamination procedures in the Athens SOP has been revised. There are separate procedures for initial decontamination prior to sampling and decontamination in the field. Copies of the relevant pages from the manual are enclosed with these comments.                                                                                                                                                        |
| 11. Page 11                                         | <u>3.5.4 Analytical Methods and Parameters</u><br>(Comments from ESD)                                                                                                                                                                                                                                                                                                                                              |
| 11.                                                 | There is a method in SW-846 for Dinoseb; it is 8150. The Cedar Chemical method in Exhibit A appears to be a semi-quantitative screen procedure; it is suggested that 8150 be used.                                                                                                                                                                                                                                 |
| 12. <i>EPA gives 0.24 mg/L</i>                      | Method 625 is not sensitive enough for toxaphene at the action level (.005 mg/L). Method 608 or 8080 is recommended.                                                                                                                                                                                                                                                                                               |
| 13.                                                 | No reference is given for Atrazine. EPA Methods 505, 507 or 525 (drinking water methods) are suggested.                                                                                                                                                                                                                                                                                                            |
| 14. <i>Probably Analytical Technology Pensacola</i> | What laboratory, besides Cedar Chemical, will be used? Where will the split samples be analyzed -- ESD?                                                                                                                                                                                                                                                                                                            |



COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081

Page 3

LOCATION

COMMENT

Page 12

15.

**7.0 CONTINGENT CLOSURE PLAN**

It is unclear as to why a contingent closure plan was provided for a storage area, since it is not required under §§ 264.110(b) or 265.110(b). Normally, the unit would be redesignated as a land unit and subject to all post-closure requirements listed under 265, as well as post-closure permitting. Cedar should be required to prepare and submit a post-closure plan after a determination has been made that the unit cannot be certified clean closed. The contingent closure plan provided is not acceptable, and Cedar should not be led to believe that this plan alone will suffice in the event that the units cannot be clean-closed.

## B.8 FIELD EQUIPMENT CLEANING PROCEDURES

### B.8.1 General

Sufficient clean equipment should be transported to the field so that an entire study can be conducted without the need for field cleaning. However, this is not possible for some specialized items of field equipment such as portable power augers (Little Beaver®), well drilling rigs, soil coring rigs, and other large pieces of field equipment. In addition, particularly during large scale studies, it is not practical or possible to transport to the field all of the precleaned field equipment required. The following procedures are to be utilized when equipment must be cleaned in the field.

### B.8.2 Equipment Used for Routine Sample Collection Activities

For routine operations involving classic parameter analyses, water quality sampling equipment such as Kemmerers, buckets, DO dunkers, dredges, etc., may be cleaned with sample or deionized water between sampling locations. A brush may be used to remove deposits of material or sediment, if necessary. If deionized water is used, water samplers should be flushed with the sample at the next sampling location before the sample is collected. It should be emphasized that these procedures cannot be used to clean equipment for the collection of samples for organic compounds or trace metals analyses.

Flow measuring equipment such as weirs, staff gages, velocity meters, and other stream gaging equipment may be cleaned with tap water after use between measuring locations, if necessary.

### B.8.3 Teflon®, Glass, Stainless Steel or Metal Equipment Used to Collect Samples for Organic Compounds and Trace Metals Analyses\*

1. Clean with tap water and laboratory detergent using a brush if necessary to remove particulate matter and surface films.
2. Rinse thoroughly with tap water.
3. Rinse thoroughly with deionized water.
4. Rinse twice with solvent.
5. Rinse thoroughly with organic-free water and allow to air dry as long as possible.
6. If organic-free water is not available, allow equipment to air dry as long as possible. Do not rinse with deionized or distilled water.

---

\* - Portable power augers (such as the Little Beaver®) or large soil boring/drill rigs should be cleaned before boring or drilling operations. (See Appendices B.7.3 and B.7.4)

Section No. B.8

Revision No. 0

Date: 2/1/91

Page 2 of 2

7. Wrap with aluminum foil, if appropriate, to prevent contamination if equipment is going to be stored or transported.

B.4 CLEANING PROCEDURES FOR STAINLESS STEEL OR METAL SAMPLING EQUIPMENT USED FOR THE COLLECTION OF SAMPLES FOR TRACE ORGANIC COMPOUNDS AND/OR METALS ANALYSES\*

1. Wash equipment thoroughly with laboratory detergent and hot water using a brush to remove any particulate matter or surface film.
2. Rinse equipment thoroughly with hot tap water.
3. Rinse equipment thoroughly with deionized water.
4. Rinse equipment twice with solvent and allow to air dry for at least 24 hours.
5. Wrap equipment in one layer of aluminum foil. Roll edges of foil into a "tab" to allow for easy removal. Seal the foil wrapped equipment in plastic and date.
6. Rinse the stainless steel or metal sampling equipment thoroughly with tap water in the field as soon as possible after use.

---

\* - When this sampling equipment is used to collect samples that contain oil, grease, or other hard to remove materials, it may be necessary to rinse the equipment several times with pesticide-grade acetone or hexane to remove the materials before proceeding with Step 1. In extreme cases, when equipment is painted, badly rusted, or coated with materials that are difficult to remove, it may be necessary to steam clean, wire brush, or sandblast equipment before proceeding with Step 1. Any metal sampling equipment that cannot be cleaned using these procedures should be discarded.

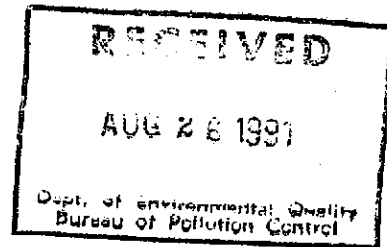
# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

August 22, 1991

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Permit Board  
State of Mississippi  
Department of Environmental Quality  
2380 Highway 80 West  
Jackson, Mississippi 39204



RE: Authorized Signatories for Cedar Chemical Corporation  
Vicksburg Chemical Division, MSD 990 714 081

Sir:


The following persons and positions are authorized as signatory persons on behalf of Cedar Chemical Corporation's Vicksburg Chemical Division for applications, reports or information submitted to the Permit Board:

1. Mr. John H. Miles, Plant Manager
2. Mr. Fred L. Ahlers, Manager, Special Projects

The following persons and positions are authorized as signatory persons on behalf of Cedar Chemical Corporation's Vicksburg Chemical Division on reports required by permit or other information requested by the Permit Board:

1. Mr. John H. Miles, Plant Manager
2. Mr. Fred L. Ahlers, Manager, Special Projects
3. Mr. G. David Madsen, Technical Manager
4. Mr. Steven T. Boswell, Director of Environmental affairs

Sincerely,

  
John C. Bumpers  
Senior Vice President Finance  
Administration & Secretary

JCB/bd

# EPA Consent Decree Being Evaluated For Local Chemical Firm

By FRED MESSINA  
Staff Writer

A consent decree is in the works between a Vicksburg chemical manufacturer and the federal Environmental Protection Agency.

Hagen Thompson, a spokesman for the EPA regional office in Atlanta, confirmed the decree involving Cedar Chemical Corp. is in the process of evaluation by the EPA headquarters in Washington.

Cedar has been in Vicksburg many years and the plants and sites it controls in the south part of the city date back to the old Spencer Chemical Co. that came to Vicksburg in the 1950s which was bought out by Gulf Chemical at one time. The company also owns land and facilities formerly owned by Southwest Potash.

Cedar makes potassium nitrate, which is primarily used as a fertilizer, as well as chlorine and nitrogen tetroxide. Nitrogen tetroxide, called NTO in the industry, is an oxidizing agent used in the nation's space program to supply oxygen to allow other chemicals to burn in space.

The decree, Thompson said, does not involve any of the land or facilities being used by Cedar to produce its present line of chemicals. Rather it involves an old pesticide plant, last used in about 1986, that dates to the Spencer and Gulf days.

The EPA filed a complaint against Cedar as the present owner of the land in 1989 under the Resource Conservation Recovery Act of 1976.

RCRA, rather involving hazardous material sites where the company is out of business or the responsible parties cannot be found under the superfund program, deals with chemical

sites and plants where the company still in operation, Thompson said.

Under the terms of what is still tentative decree, Cedar is supposed to spend an estimated \$1 million year over a five-year period beginning when the decree becomes official.

Although details were not available of the agreement between Cedar and EPA, Thompson said the company will investigate and test to determine just what chemicals are present, devise a plan to remove them and then follow through with the plan.

Just what chemicals exist at the site will not be known for certain until the decree's investigation is complete.

According to other sources, the consent decree process is beneficial to both the EPA and to the company involved for more reasons than just getting a potentially dangerous site cleaned up.

The main advantages are strict deadlines placed on the EPA where they must act on a report filed by the company within a specified period of time. This allows the company to set up a schedule for when the work will be done and an estimate of the amount of money the cleanup will require.

Reportedly, Cedar and EPA reached the tentative provisions of the consent decree in late 1990 and forwarded them to the Atlanta regional office for review before it was sent to the Washington headquarters.

After the agreement is approved by the Washington officials, it will be forwarded to the U.S. Department of Justice for its review before being sent to the federal court system which must also approve before the decree becomes official.



FILE COPY

STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

August 19, 1991

Mr. Steve Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Mississippi 39180

Re: Closure Plan for Hazardous Waste  
Container Storage Area and Off-Specification  
Product Storage Area Dated April 29, 1991

Dear Mr. Boswell:

Enclosed please find a copy of comments issues by U.S. EPA, Region IV on the above-referenced closure plan. I will be in contact with you in a few days to discuss these comments.

If you have any questions, please contact me at 961-5171.

Sincerely,

A handwritten signature in cursive script that reads "Trey Fleming".

Trey Fleming  
Hazardous Waste Division

TF-mes1  
Enclosure

cc: Caleb Dana, Woodward-Clyde

WASTE MANAGEMENT DIVISION  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV  
345 COURTLAND STREET, N.E.  
ATLANTA, GA 30365

FACSIMILE TRANSMISSION SHEET  
(Please Number All Pages)

DATE: 8/15/91 NO. OF PAGES (Including Cover Sheet) 2

TO: TREY FLEMING TO FAX NUMBER: (601) 354-661

ADDRESS: MDEQ TO PHONE NUMBER: (601) 961-5066

RODA TSD BRANCH FROM FTS FAX NUMBER: 257-5205

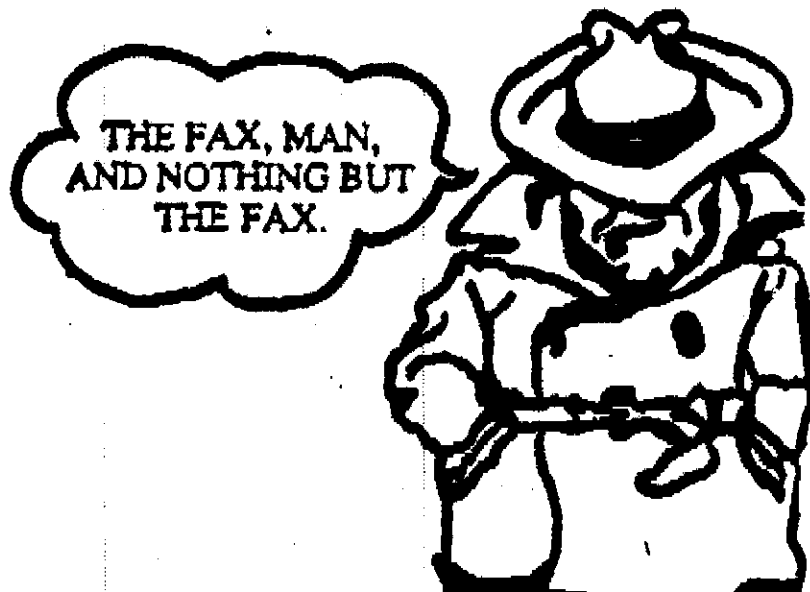
COMMERCIAL FAX NO: 404-347-5203

IF THE MESSAGE IS RECEIVED POORLY, PLEASE CALL LISSE ETUKAM

IN OR AT FTS 257-3432 OR COMMERCIAL (404) 347-3433

SPECIAL NOTES OR INSTRUCTIONS

PLS CALL IF YOU HAVE ANY  
QUESTIONS







## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

Mr. Toby M. Cook, Coordinator  
RCRA TSD Branch  
Mississippi Department of Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39209

Re: EPA Comments on Closure Plan  
Cedar Chemical Corporation  
Vicksburg, Mississippi  
EPA I.D. Number MSD 990 714 081

Dear Mr. Cook:

The Agency has reviewed the revised closure plan for the Hazardous Waste Drum Storage Area and Returned Product Storage Area at Cedar Chemical Corporation in Vicksburg, Mississippi, which was submitted to MDEQ on May 15, 1991.

Based on input from the Laboratory Evaluation and Quality Assurance Section of the Environmental Services Division, and review of the above document, the enclosed comments are offered for inclusion into a Notice of Deficiency for this document.

If you have any questions, please contact Elizabeth Ketcham of the Waste Engineering Section at (404)347-3433.

Sincerely yours,

James H. Scarbrough, P.E., Chief  
RCRA and Federal Facilities Branch  
Waste Management Division

Enclosure

COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081

LOCATION

COMMENT

1. Page 2  
Response to Comments Comment 2.  
Facility should have added a sample point rather than relocating from the side to the bottom of the sump.
2. Page 3  
1.4 Description of Wastes Stored  
This section should include an estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the facility in accordance with 40 CFR 265.112(b)(3).
3. Page 4  
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The reference used in obtaining the performance standard for Atrazine should be documented in a manner similar to that used for the other constituents. According to the HEAST tables, Atrazine is a carcinogen in addition to being a systemic toxicant. The Carcinogenic Slope Factor is  $2.2 \times 10^{-1}$  (mg/kg-day)<sup>-1</sup>. A MSDS for Atrazine should also be included with the plan.
4.  
In order to demonstrate that the storage areas are clean, the facility must show through direct sampling, that each concrete surface has been decontaminated to health-based levels for each hazardous constituent present in any hazardous waste ever managed in the unit. Analysis of the hydroblast water is not sufficient, due to the potential for dilution and volatilization of hazardous constituents in the waste.
5.  
According to the MSDS for "Potato Top Killer 300", toluene is present in the material, in addition to Dinoseb. Therefore, toluene should be addressed in all of the sampling and analysis sections of the plan.
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3.2 Pad and Equipment Decontamination  
Since listed waste was stored on the storage pads, any residue or debris removed from the pad is considered to contain listed waste, and must be managed as hazardous waste, unless sampling shows that all hazardous constituents, for which the wastes are listed, are present below health-based levels. TC testing is not sufficient for material that contains listed hazardous waste.

COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081

Page 2

| <u>LOCATION</u> | <u>COMMENT</u>                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Page 6       | <u>3.3 Contaminated Soil Removal</u><br>This section should be expanded to address how Cedar will determine when enough contaminated soil has been removed from a given area. Some allowance should be made for such areas to be re-sampled to verify that remaining soil is not contaminated above health-based levels. Additional soil should be excavated and re-sampled until the areas are shown to be clean. |
| 8. Pages 6-7    | <u>3.4.1 Water Sampling</u> (Comment from ESD)<br>Sampling procedures in this section, and in the following section on Soil Sampling, sample preservation procedures and holding times should be included.                                                                                                                                                                                                         |
| 9. Pages 7-8    | <u>3.4.2 Soil Sampling</u><br>A rationale for determining proposed sample locations should be provided in the plan to show that the number and depths of samples will be sufficient to demonstrate clean closure.                                                                                                                                                                                                  |
| 10.             | Decontamination procedures in the Athens SOP has been revised. There are separate procedures for initial decontamination prior to sampling and decontamination in the field. Copies of the relevant pages from the manual are enclosed with these comments.                                                                                                                                                        |
| Page 11         | <u>3.5.4 Analytical Methods and Parameters</u><br>(Comments from ESD)                                                                                                                                                                                                                                                                                                                                              |
| 11.             | There is a method in SW-846 for Dinoseb; it is 8150. The Cedar Chemical method in Exhibit A appears to be a semi-quantitative screen procedure; it is suggested that 8150 be used.                                                                                                                                                                                                                                 |
| 12.             | Method 625 is not sensitive enough for toxaphene at the action level (.005 mg/L). Method 608 or 8080 is recommended.                                                                                                                                                                                                                                                                                               |
| 13.             | No reference is given for Atrazine. EPA Methods 505, 507 or 525 (drinking water methods) are suggested.                                                                                                                                                                                                                                                                                                            |
| 14.             | What laboratory, besides Cedar Chemical, will be used? Where will the split samples be analyzed -- ESD?                                                                                                                                                                                                                                                                                                            |

COMMENTS ON CLOSURE PLAN FOR  
CEDAR CHEMICAL CORPORATION  
EPA ID NUMBER MSD 990 714 081  
Page 3

LOCATION

COMMENT

Page 12

15.

**7.0 CONTINGENT CLOSURE PLAN**

It is unclear as to why a contingent closure plan was provided for a storage area, since it is not required under §§ 264.110(b) or 265.110(b). Normally, the unit would be redesignated as a land unit and subject to all post-closure requirements listed under 265, as well as post-closure permitting. Cedar should be required to prepare and submit a post-closure plan after a determination has been made that the unit cannot be certified clean closed. The contingent closure plan provided is not acceptable, and Cedar should not be led to believe that this plan alone will suffice in the event that the units cannot be clean-closed.

Section No. B.8

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Page 1 of 2

**B.8 FIELD EQUIPMENT CLEANING PROCEDURES****B.8.1 General**

Sufficient clean equipment should be transported to the field so that an entire study can be conducted without the need for field cleaning. However, this is not possible for some specialized items of field equipment such as portable power augers (Little Beaver®), well drilling rigs, soil coring rigs, and other large pieces of field equipment. In addition, particularly during large scale studies, it is not practical or possible to transport to the field all of the precleaned field equipment required. The following procedures are to be utilized when equipment must be cleaned in the field.

**B.8.2 Equipment Used for Routine Sample Collection Activities**

For routine operations involving classic parameter analyses, water quality sampling equipment such as Kemmerers, buckets, DO dunkers, dredges, etc., may be cleaned with sample or deionized water between sampling locations. A brush may be used to remove deposits of material or sediment, if necessary. If deionized water is used, water samplers should be flushed with the sample at the next sampling location before the sample is collected. It should be emphasized that these procedures cannot be used to clean equipment for the collection of samples for organic compounds or trace metals analyses.

Flow measuring equipment such as weirs, staff gages, velocity meters, and other stream gaging equipment may be cleaned with tap water after use between measuring locations, if necessary.

**B.8.3 Teflon®, Glass, Stainless Steel or Metal Equipment Used to Collect Samples for Organic Compounds and Trace Metals Analyses\***

1. Clean with tap water and laboratory detergent using a brush if necessary to remove particulate matter and surface films.
2. Rinse thoroughly with tap water.
3. Rinse thoroughly with deionized water.
4. Rinse twice with solvent.
5. Rinse thoroughly with organic-free water and allow to air dry as long as possible.
6. If organic-free water is not available, allow equipment to air dry as long as possible. Do not rinse with deionized or distilled water.

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\* - Portable power augers (such as the Little Beaver®) or large soil boring/drill rigs should be cleaned before boring or drilling operations. (See Appendices B.7.3 and B.7.4)

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Page 2 of 2

7. Wrap with aluminum foil, if appropriate, to prevent contamination if equipment is going to be stored or transported.

Section No. B.4

Revision No. 0

Date: 2/1/91

Page 1 of 1

**B.4 CLEANING PROCEDURES FOR STAINLESS STEEL OR METAL SAMPLING EQUIPMENT USED FOR THE COLLECTION OF SAMPLES FOR TRACE ORGANIC COMPOUNDS AND/OR METALS ANALYSES\***

1. Wash equipment thoroughly with laboratory detergent and hot water using a brush to remove any particulate matter or surface film.
2. Rinse equipment thoroughly with hot tap water.  
  
Rinse equipment thoroughly with deionized water.
3. Use equipment twice with solvent and allow to air dry for at least hours.
4. Wrap equipment in one layer of aluminum foil. Roll edges of foil into a "tab" to allow for easy removal. Seal the foil wrapped equipment in plastic and date.
5. Rinse the stainless steel or metal sampling equipment thoroughly with tap water in the field as soon as possible after use.

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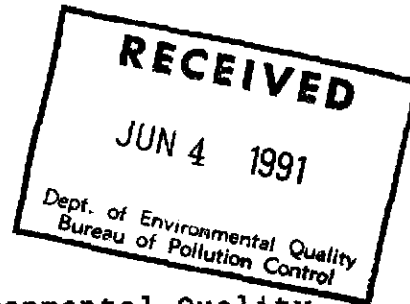
\* - When this sampling equipment is used to collect samples that contain oil, grease, or other hard to remove materials, it may be necessary to rinse the equipment several times with pesticide-grade acetone or hexane to remove the materials before proceeding with Step 1. In extreme cases, when equipment is painted, badly rusted, or coated with materials that are difficult to remove, it may be necessary to steam clean, wire brush, or sandblast equipment before proceeding with Step 1. Any metal sampling equipment that cannot be cleaned using these procedures should be discarded.

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 219



Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

June 3, 1991

Re: Cedar Chemical Corporation, MSD990714081  
Request for 30 Day Extension for Lab Pack Storage

Dear Mr. Fleming:

As required by Director Chisolm's letter of May 10, 1991, please find enclosed copies of the manifesting for the lab packs which Cedar Chemical requested a thirty-day extension for temporary storage.

If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen





# HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039 Expires 9-30-91

| UNIFORM HAZARDOUS WASTE MANIFEST                                                                                                     |  | 1. Generator's US EPA ID No.                                                                                                                                                                                                                                                                                                                            | Manifest Document No. | 2. Page 1 of 3     | Information in the shaded areas is not required by Federal law. |
|--------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|-----------------------------------------------------------------|
| 3. Generator's Name and Mailing Address                                                                                              |  | Vicksburg Chemical<br>Rifle Range Rd.<br>Vicksburg, MS 39181                                                                                                                                                                                                                                                                                            |                       |                    |                                                                 |
| 4. Generator's Phone (601) 636-1231                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                         |                       |                    |                                                                 |
| 5. Transporter 1 Company Name                                                                                                        |  | 6. US EPA ID Number                                                                                                                                                                                                                                                                                                                                     |                       |                    |                                                                 |
| Chemical Waste Management                                                                                                            |  | LD0099202681                                                                                                                                                                                                                                                                                                                                            |                       |                    |                                                                 |
| 7. Transporter 2 Company Name                                                                                                        |  | 8. US EPA ID Number                                                                                                                                                                                                                                                                                                                                     |                       |                    |                                                                 |
| 9. Designated Facility Name and Site Address                                                                                         |  | 10. US EPA ID Number                                                                                                                                                                                                                                                                                                                                    |                       |                    |                                                                 |
| CWM - CHEMICAL SERVICES, INC.<br>Memphis Facility<br>5485 Tay - For Dr.<br>Millington, TN 38059                                      |  | IT IN D 0 0 0 7 7 2 1 8 6                                                                                                                                                                                                                                                                                                                               |                       |                    |                                                                 |
| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)                                                 |  | 12. Containers                                                                                                                                                                                                                                                                                                                                          |                       | 13. Total Quantity | 14. Unit Wt/Vol                                                 |
|                                                                                                                                      |  | No.                                                                                                                                                                                                                                                                                                                                                     | Type                  |                    |                                                                 |
| a. Waste flammable liquid, poisonous, n.o.s., flammable liquid, UN1992<br>CWM Profile Number AG1761                                  |  | 009                                                                                                                                                                                                                                                                                                                                                     | DF                    | 00080              | G                                                               |
| b. Waste flammable liquid, n.o.s., flammable liquid, UN1993<br>CWM Profile Number AG1761                                             |  | 003                                                                                                                                                                                                                                                                                                                                                     | DF                    | 00024              | G                                                               |
| c. Waste flammable liquid, corrosive, n.o.s., flammable liquid, UN2924<br>CWM Profile Number AG1761                                  |  | 002                                                                                                                                                                                                                                                                                                                                                     | DF                    | 00019              | G                                                               |
| d. (RQ) Waste poison B, liquid, n.o.s., Poison B, UN2810<br>CWM Profile Number AG1761                                                |  | 001                                                                                                                                                                                                                                                                                                                                                     | DF                    | 00014              | G                                                               |
| 15. Special Handling Instructions and Additional Information                                                                         |  | 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. |                       |                    |                                                                 |
| In emergency, call (601) 636-1231                                                                                                    |  | Bill Tech Services<br>Marietta, GA                                                                                                                                                                                                                                                                                                                      |                       |                    |                                                                 |
| Work Order #: 910603-003                                                                                                             |  | Purchase Order #: 88032                                                                                                                                                                                                                                                                                                                                 |                       |                    |                                                                 |
| 17. Transporter 1 Acknowledgement of Receipt of Materials                                                                            |  | 18. Transporter 2 Acknowledgement of Receipt of Materials                                                                                                                                                                                                                                                                                               |                       |                    |                                                                 |
| Printed/Typed Name                                                                                                                   |  | Signature                                                                                                                                                                                                                                                                                                                                               |                       | Month Day Year     |                                                                 |
| Lynn Gunnison                                                                                                                        |  | Lynn Gunnison                                                                                                                                                                                                                                                                                                                                           |                       | 10/5/31/91         |                                                                 |
| 19. Discrepancy Indication Space                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                         |                       |                    |                                                                 |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. |  |                                                                                                                                                                                                                                                                                                                                                         |                       |                    |                                                                 |
| Printed/Typed Name                                                                                                                   |  | Signature                                                                                                                                                                                                                                                                                                                                               |                       | Month Day Year     |                                                                 |
|                                                                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                         |                       |                    |                                                                 |



# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Form Approved: OMB No. 2050-0039. Expires 9-30-91

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|--|--------------------------------------------------|--|-------------------------------------|--|-----------------------------------------------------------------|--|
| <b>UNIFORM HAZARDOUS WASTE MANIFEST</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 1. Generator's US EPA ID No.<br>MS D1941071409191531 |  | Manifest Document No.                            |  | 2. Page 1 of 1                      |  | Information in the shaded areas is not required by Federal law. |  |
| 3. Generator's Name and Mailing Address<br>Vicksburg Chemical<br>Rifle Range Rd.<br>Vicksburg, MS 39181                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  | A. State Manifest Document Number<br>CWMA 586367 |  | B. State Generator ID               |  | C. State Transporter ID 205-652-9721                            |  |
| 4. Generator's Phone (601) 636-1231                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                      |  | US EPA ID Number                                 |  | D. Transporter's Phone              |  | E. State Transporter ID                                         |  |
| 5. Transporter 1 Company Name<br>Chemical Waste Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                      |  | 11L D099202681                                   |  | US EPA ID Number                    |  | G. State Facility's ID                                          |  |
| 7. Transporter 2 Company Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                      |  | US EPA ID Number                                 |  | H. Facility's Phone<br>205/652-9721 |  | 13. Total Quantity                                              |  |
| 9. Designated Facility Name and Site Address<br>CHEMICAL WASTE MANAGEMENT, INC.<br>Emelle Facility<br>Alabama Highway 17 at Mile Marker 163<br>Emelle, Alabama 36459                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                      |  | 10. US EPA ID Number                             |  | 12. Containers<br>No. Type          |  | 14. Unit Wt/Vol                                                 |  |
| 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)<br>Cwm # 043092-4016<br>solid, non-regulated per 49 CFR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                      |  | CWM Profile Number AG1760                        |  | 002 DMD 011 AG                      |  | N/A                                                             |  |
| b. CWM Profile Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
| c. CWM Profile Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
| d. CWM Profile Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
| J. Additional Descriptions for Materials Listed Above<br>a. 2155 V0107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                      |  | State of origin:<br>Mississippi                  |  | K. Handling Codes for Wastes Listed |  |                                                                 |  |
| 15. Special Handling Instructions and Additional Information<br>in emergency call 601-636-1231<br>910531-042<br>Work Order #: 410603-005 RIE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                      |  | Purchase Order #: 88032                          |  | Bill Tech Services<br>Marietta, GA  |  |                                                                 |  |
| 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.<br>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
| Printed/Typed Name<br>Lynn Gunnison                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                      |  | Signature<br>Lynn Gunnison                       |  |                                     |  | Month Day Year<br>10/5/31/91                                    |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials<br>Printed/Typed Name<br>R.E. Williams                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                      |  | Signature<br>R.E. Williams                       |  |                                     |  | Month Day Year<br>10/5/31/91                                    |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials<br>Printed/Typed Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                      |  | Signature                                        |  |                                     |  | Month Day Year                                                  |  |
| 19. Discrepancy Indication Space<br>Added item to line 11A per WPS AL 6/3/91                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                      |  |                                                  |  |                                     |  |                                                                 |  |
| 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19:<br>Printed/Typed Name<br>Anna Corne                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  | Signature<br>Anna Corne                          |  |                                     |  | Month Day Year<br>10/5/31/91                                    |  |

STATE OF ALABAMA (Must Accompany Shipment)



# HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039, Expires 9-30-91

| UNIFORM HAZARDOUS WASTE MANIFEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | 1. Generator's US EPA ID No.                                 | Manifest Document No. | 2. Page 1 of 3 | Information in the shaded areas is not required by Federal law. |  |                    |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|-----------------------|----------------|-----------------------------------------------------------------|--|--------------------|--|
| 3. Generator's Name and Mailing Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Vicksburg Chemical<br>Rifle Range Rd.<br>Vicksburg, MS 39181 |                       |                |                                                                 |  |                    |  |
| 4. Generator's Phone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | (601) 636-1231                                               |                       |                |                                                                 |  |                    |  |
| 5. Transporter 1 Company Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Chemical Waste Management                                    |                       |                |                                                                 |  |                    |  |
| 6. Transporter 1 US EPA ID Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | LD0099202681                                                 |                       |                |                                                                 |  |                    |  |
| 7. Transporter 2 Company Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                              |                       |                |                                                                 |  |                    |  |
| 8. Designated Facility Name and Site Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 10. US EPA ID Number                                         |                       |                |                                                                 |  |                    |  |
| CWM - CHEMICAL SERVICES, INC.<br>Memphis Facility<br>5485 Tay - For Dr.<br>Millington, TN 38059                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | ITND0000717121816                                            |                       |                |                                                                 |  |                    |  |
| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 12. Containers                                               |                       |                |                                                                 |  | 13. Total Quantity |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | No. Type                                                     |                       |                |                                                                 |  | Unit               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | No. Type                                                     |                       |                |                                                                 |  | Unit               |  |
| a. Waste flammable liquid, poisonous, n.o.s.,<br>flammable liquid, UN1992<br>CWM Profile Number AG1761                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | 009<br>0007 DFE0006+                                         |                       | 00080<br>G     |                                                                 |  |                    |  |
| b. Waste flammable liquid, n.o.s., flammable<br>liquid, UN1993<br>CWM Profile Number AG1761                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 003<br>0002 DFE00019                                         |                       | 00024<br>G     |                                                                 |  |                    |  |
| c. Waste flammable liquid, corrosive, n.o.s.,<br>flammable liquid, UN2924<br>CWM Profile Number AG1761                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | 0102 DFE00019                                                |                       | G              |                                                                 |  |                    |  |
| d. (RQ) Waste poison B, liquid, n.o.s., Poison<br>B, UN2810<br>CWM Profile Number AG1761                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 001<br>0002 DFE00028                                         |                       | G              |                                                                 |  |                    |  |
| 15. Special Handling Instructions and Additional Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | K. Handling Codes for Waste Listed Above                     |                       |                |                                                                 |  |                    |  |
| In emergency, call (601) 636-1231                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Bill Tech Services<br>Marietta, GA                           |                       |                |                                                                 |  |                    |  |
| Work Order #: 910603-203                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Purchase Order #: 88032                                      |                       |                |                                                                 |  |                    |  |
| 16. GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.<br>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. |  |                                                              |                       |                |                                                                 |  |                    |  |
| Printed/Typed Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
| Lynn Gunnison                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Lynn Gunnison                                                |                       | 10/5/31/91     |                                                                 |  |                    |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
| Printed/Typed Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
| R.E.WILLIAMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | R.E.WILLIAMS                                                 |                       | 10/5/31/91     |                                                                 |  |                    |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
| Printed/Typed Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
| 19. Discrepancy Indication Space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                              |                       |                |                                                                 |  |                    |  |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                              |                       |                |                                                                 |  |                    |  |
| Printed/Typed Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Signature                                                    |                       | Month Day Year |                                                                 |  |                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                              |                       |                |                                                                 |  |                    |  |

**UNIFORM HAZARDOUS  
WASTE MANIFEST  
(Continuation Sheet)**

21. Generator's US EPA ID No.

Manifest  
Document No.

22. Page

Information in the shaded areas  
is not required by Federal  
law.

MSD 9907141 081 91530 20f3

23. Generator's Name

Vicksburg Chemical

L. State Manifest Document Number

CWM 1104960

M. State Generator's ID

24. Transporter Company Name

25.

US EPA ID Number

N. State Transporter's ID

Chemical Waste Management L D 099202681

O. Transporter's Phone 205-652-9721

26. Transporter Company Name

27.

US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

29. Containers

30.  
Total  
Quantity

31.  
Unit  
W/Vol

R.  
Waste No.

a. Waste oxidizer, poisonous solid, n.o.s.,  
oxidizer, NA 9200

CWM Profile Number AG1761

002 DF

00013

P

0001, 0009,  
0007, 0008

b. Waste corrosive liquid, n.o.s., corrosive  
liquid, UN 1760

CWM Profile Number AG1761

002  
LE  
001 DF

00019  
00014

G

0002

c. Waste benzoyl peroxide, organic peroxide,  
NA 2085

CWM Profile Number AG1761

001 DF

00005

G

0003  
0001

d. Waste oxidizer, n.o.s., oxidizer, UN 1479

CWM Profile Number AG1761

001 DF

00005

G

0001

e. (RQ) Waste Poison B, solid, n.o.s., Poison B,  
UN 2811 (contains sodium cyanide, potassium  
cyanate)

CWM Profile Number AG1761

002  
001 DF

00010  
00005

G

P030  
P106

f. (RQ) Waste water reactive solid, n.o.s.,  
flammable solid, UN 2813 (contains  
sodium, zinc metal)

CWM Profile Number AG1761

001 DF

00005

G

0001  
0003

g. Waste mercury, metallic, ORM-B, NA 2809

CWM Profile Number AG1762

001 DF

00005

G

0009  
W51

h. (RQ) Waste substituted nitrophenol pesticide,  
n.o.s., Poison B, UN 2779 (contains  
dinitrophenol)

CWM Profile Number AG1763

0010 M

00055

G

P020

i. Waste flammable liquid, n.o.s., flammable  
liquid, UN 1993

CWM Profile Number AG1759

0020 M

00110

G

0001

S. Additional Descriptions for Materials Listed Above

a. 2/5 VC#21 33 A. 01/05 VC#25  
b. 2/4/5 VC#9 30 G. 1/5 VC#17  
c. 1/5 VC#17 H. 1/55  
d. 1/5 VC#20 I. 2/55 VC#4, 5  
e. 2/5 VC#2360

T. Handling Codes for Wastes Listed Above

a. d. g.  
b. e. h.  
c. f. i.

32. Special Handling Instructions and Additional Information

33. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name

R.E. WILLIAMS

Signature

*R.E. Williams*

Date

Month Day Year  
05/31/91

34. Transporter Acknowledgement or Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year

35. Discrepancy Indication Space

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) 21. Generator's US EPA ID No. MS D99071408 191530 Manifest Document No. 3043 22. Page Information in the shaded areas is not required by Federal law.

23. Generator's Name Vicksburg Chemical C. State Manifest Document Number CWMAT104960 M. State Generator's ID

24. Transporter Company Name Chemical Waste Management 25. US EPA ID Number 1120099202681 N. State Transporter's ID O. Transporter's Phone 756524721

26. Transporter Company Name 27. US EPA ID Number P. State Transporter's ID Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) 29. Containers No. Type 30. Total Quantity 31. Unit Wt/Vol R. Waste No.

c. Waste flammable liquid, n.o.s., flammable liquid, UN 1993 CWM Profile Number AG1758 001 DM 00055 G 0001

(B) Waste mercury compound, solid, n.o.s., Poison B, UN 2025 (contains mercury) CWM Profile Number AG1903 001 DF 00013 P 0009

(RQ) Waste flammable solid, n.o.s., flammable solid, UN 1325 CWM Profile Number AG2051 002 DF 00001 P 0003

d. Waste Poison B, solid, n.o.s., Poison B, UN 2811 CWM Profile Number AG2251 004 DF 00056 G 0008, 0009, 0005, 0006

e. Waste flammable liquid, n.o.s., flammable liquid, UN 1993 CWM Profile Number AG1757 002 DM 000110 G 0001, 0004, 0009, 0039, 0070, 0023, 0001

f. Waste flammable solid, n.o.s., flammable solid, UN 1325 CWM Profile Number AG1761 003 DF 00003 P 0020

g. (RQ) Waste substituted nitrophenol pesticide liquid, n.o.s., Poison B, UN 2779 CWM Profile Number AG1761 004 DF 00020 G 0001, 0004, 0009, 0039, 0070, 0023, 0001

h. CWM Profile Number i. CWM Profile Number

5. Additional Descriptions for Materials Listed Above a. 1/55 VC#3 c. 2/55 VC#1, 2 u16, 309, u108, u228, u004, u213 b. 1/5 VC#24 f. 3/5 VC#29, 83, 82 d. 4/4 VC#9, 10, 11, 118 g. 4/5 VC#33, 34, 35, 36 T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

33. Transporter Acknowledgement of Receipt of Materials Printed/Typed Name R.E. Williams Signature Date 05/31/91

34. Transporter Acknowledgement of Receipt of Materials Printed/Typed Name Signature Date

35. Discrepancy Indication Space



**FILE COPY**

**STATE OF MISSISSIPPI**

DEPARTMENT OF ENVIRONMENTAL QUALITY

RAY MABUS  
GOVERNOR

May 16, 1991

Mr. James Scarbrough, P.E., Chief  
RCRA Branch - USEPA  
Region IV  
345 Courtland Street, N.E.  
Atlanta, GA 30365

Re: Cedar Chemical Corporation  
Vicksburg, Mississippi  
MSD990714081

Dear Mr. Scarbrough:

Enclosed please find a copy of the revised closure plan for the Hazardous Waste Drum Storage Area and Returned Product Storage Area at Cedar Chemical Corporation in Vicksburg, Mississippi. This closure plan was initially submitted to the Mississippi Department of Environmental Quality (MDEQ) on January 15, 1991. This revised closure plan was submitted to MDEQ on May 15, 1991, based on comments made by MDEQ on March 28, 1991, in a letter to Cedar.

If you have any comments regarding this revised closure plan, please submit them to MDEQ by June 17, 1991.

Sincerely,

A handwritten signature in cursive script that reads "Toby M. Cook".

Toby M. Cook, Coordinator  
RCRA TSD Branch

TMC:TF:lfc

Enclosure

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

HAND DELIVERED

Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 15, 1991

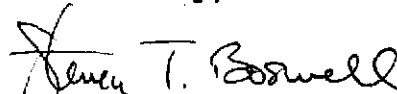
Re: Cedar Chemical Corporation, MSD990714081  
Proposed Closure Plan for  
Hazardous Waste Container Storage Area

Dear Mr. Fleming:

Attached is a revised version of the proposed Closure Plan for Cedar's Hazardous Waste Drum Storage Area and Returned Product Storage Area. The plan has been revised to include the requests for changes made by MSDEQ after the initial review.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen  
Mr. Malone  
Mr. Karkkainen



**FILE COPY**

**STATE OF MISSISSIPPI**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

May 13, 1991

Mr. Steven T. Boswell  
Cedar Chemical Corporation.  
P. O. Box 3  
Vicksburg, Mississippi 39180

Dear Mr. Boswell,

In response to our discussion of Friday, May 10, 1991, enclosed is the form necessary for the type of injection well used in subsurface remediation (a Class V well). Also enclosed is a copy of a letter to consultants considering similar use of such a well at a site here in Mississippi. Mr. David Booth of this office is the appropriate contact if you have any further questions regarding Class V wells.

Additionally, I am not aware of any regulations the State may have specifically regarding the subsurface injection of microbes for remedial purposes.

If I may be of further assistance, please call me at 961-5066.

Sincerely,

*Trey Fleming*

Trey Fleming  
Hazardous Waste Division

tf:cedrbos1





**FILE COPY**

**STATE OF MISSISSIPPI**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

May 10, 1991.

Mr. Steve Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Mississippi 39180

Dear Mr. Boswell:

This is in response to your request of May 2, 1991 for an extension to the 90 day storage limit. The Office grants one 30 day extension as allowed by Mississippi Hazardous Waste Management Regulations 262.34(b). This extension is effective from May 6, 1991 until June 4, 1991.

When the hazardous waste is shipped off-site, a copy of the manifest must be sent to this office for confirmation of compliance with the extension date. If the waste is stored beyond the extension deadline, enforcement action by this office will begin.

Sincerely,

A handwritten signature in cursive script, appearing to read "Charles Chisolm".

Charles Chisolm  
Bureau Director

TC:CHC:lfc

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

RECEIVED

MAY 13 1991

REPLY TO: P.O. BOX 3 Bureau of Environmental Quality  
VICKSBURG, MS 39180  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 218

Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 9, 1991

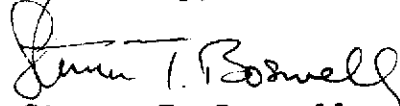
Re: Cedar Chemical Corporation, MSD990714081  
Request for 30 Day Extension for Lab Pack Storage

Dear Mr. Fleming:

As we discussed by telephone yesterday, May 8, 1991, please find enclosed a copy of a telefax from Chemical Waste Management describing the difficulties they are experiencing in transferring shipments of waste to their disposal facilities. Because of the delays described, Cedar had to request a thirty-day extension of the allowed storage time for generators.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen



## Chemical Waste Management, Inc.

Technical Services Division  
1090 Northchase Parkway North, Suite 290  
Marietta, Georgia 30067  
404/951-6700

May 8, 1991

Steve Boswell  
Vicksburg Chemicals  
P.O. Box 3  
Vicksburg, MS 39181

Dear Mr. Boswell:

Chemical Waste Management, Inc. - Technical Services Division wishes to thank you for the opportunity to provide you with our professional laboratory packaging services. Our OSHA trained and experienced field personnel are second to none in their ability to package multitudes of various wastes in full compliance with RCRA, DOT, and disposal facility guidelines. We will continue to provide this high level of service as long as there is a need.

However, we are currently experiencing a severe shortage of incineration capacity for labpack materials. There has been an unexpected capacity problem at both our CWM Chemical Services incinerator in Chicago, Illinois and our Trade Waste Incineration (TWI) facility located in Sauget, Illinois. The Port Arthur, Texas incineration facility is still currently under a start up phase and will not be accepting labpack charges in the very near future. Our competitors are experiencing these same difficulties. CWM-Technical Services expects this nationwide capacity problem to be resolved within the next few weeks.

CWM-Technical Services is taking several measures to reduce the amount of time this capacity restriction will effect our labpack customers. First, we are in almost daily contact with each of the incinerators to ensure we will be informed when additional capacity is made available. Second, we are currently working on alternate disposal facilities which meet our high standards of compliance and performance. We will use these facilities if capacity is available. These facilities may not be owned and operated by CWM but have been audited and approved by our Environmental Management group. Please notify us if there are any facilities that you may not wish to use.



Vicksburg Chemicals

May 8, 1991

Page Two

Meanwhile, we are continuing to provide our other core service offerings. These include:

- drum ID;
- repackaging;
- decontamination and;
- tank/sump cleaning and removal services.

Our In-Plant Services offering is only limited on the labpack portion of our contract.

We apologize for this temporary inconvenience. If you wish to discuss your individual situation please call me at (404)951-6700. We will be contacting you again soon to either update you or to schedule the removal of your labpack materials.

Sincerely,

CHEMICAL WASTE MANAGEMENT, INC.  
Technical Services Division

Rob Whorton  
Estimator

cc: Kenny Kane - Chemical Waste Management  
Claudia Parker - Chemical Waste Management

05/09/91

10:25

CEDAR CHEMICAL VICKSBURG MILL

001

## CEDAR CHEMICAL CORPORATION

1st Floor - 3100 Poplar Avenue - Memphis, TN 38197 - 901-636-1231

REPLY TO: P. O. BOX 1  
VICKSBURG, MS 39180  
(601) 636-1231

### TELESCOPIER COVER LETTER

PLEASE DELIVER THIS TELECOPY TO:

NAME Mr. Terry Fleming

FIRM INSPEX

FROM Steve Roedel

CALL TODAY 5/9/91

TIME 10:35

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE 4

PLEASE CALL SOON AS POSSIBLE IF THERE ARE PROBLEMS WITH  
TRANSMITTAL. (ROSE)

IF TOTAL NUMBER OF PAGES ABOVE WAS NOT RECEIVED PLEASE  
CALL (601) 636-1231.

TELEFAX NO. 601-636-9767

THANK YOU,

05/09/91

10:26

CEDAR CHEMICAL VICKSBURG DIV

002

## CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-3368

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39081  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
# 422 276 218

Mr. Tray Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2386 Highway 80 West  
Jackson, MS 39204

May 9, 1991

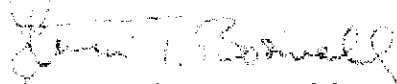
Re: Cedar Chemical Corporation, MSD990714081  
Request for 30 Day Extension for Lab Pack Storage

Dear Mr. Fleming:

As we discussed by telephone yesterday, May 8, 1991, please find enclosed a copy of a telefax from Chemical Waste Management describing the difficulties they are experiencing in transferring shipments of waste to their disposal facilities. Because of the delays described, Cedar had to request a thirty-day extension of the allowed storage time for generators.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

cc: Mr. Ahlers  
Mr. Madsen

**Chemical Waste Management, Inc.**

Technical Services Division  
1090 Northchase Parkway North, Suite 200  
Marietta, Georgia 30067  
(404) 875-1000

May 8, 1991

Steve Boswell  
Vicksburg Chemicals  
P.O. Box 3  
Vicksburg, MS 39181

Dear Mr. Boswell:

Chemical Waste Management, Inc. - Technical Services Division wishes to thank you for the opportunity to provide you with our professional laboratory packaging services. Our OSHA trained and experienced field personnel are second to none in their ability to package multitudes of various wastes in full compliance with RCRA, DOT, and disposal facility guidelines. We will continue to provide this high level of service as long as there is a need.

However, we are currently experiencing a severe shortage of incineration capacity for labpack materials. There has been an unexpected capacity problem at both our CWM Chemical Services incinerator in Chicago, Illinois and our Trade Waste Incineration (TWI) facility located in Sauget, Illinois. The Port Arthur, Texas incineration facility is still currently under a start up phase and will not be accepting labpack charges in the very near future. Our competitors are experiencing these same difficulties. CWM-Technical Services expects this nationwide capacity problem to be resolved within the next few weeks.

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Vicksburg Chemicals

May 8, 1991

Page Two

Meanwhile, we are continuing to provide our other core service offerings. These include:

- drum filling;
- pipe lagging;
- decontamination and;
- tank/dump cleaning and removal services.

Our In-Plant Services offering is only limited on the Labpack portion of our contract.

We apologize for this temporary inconvenience. If you wish to discuss your individual situation please call me at (404)931-6700. We will be contacting you again soon to either update you or to schedule the removal of your labpack materials.

Sincerely,

CHEMICAL WASTE MANAGEMENT, INC.  
Technical Services Division

Bob Whorton  
Estimator

cc: Kenny Kent - Chemical Waste Management  
Claudia Parker - Chemical Waste Management



# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 216

Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 3, 1991

Re: Cedar Chemical Corporation, MSD990714081  
Request for 30 Day Extension for Lab Pack Storage

Dear Mr. Fleming:

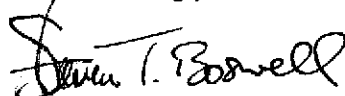
As we discussed by telephone today, May 3, 1991, Cedar Chemical requests a thirty day extension for temporary storage of waste laboratory chemicals in overpack containers. These chemicals are surplus from Cedar's laboratory which Cedar elected to discard. The chemicals have been properly labeled and containerized. Temporary storage began February 5, 1991.

The chemicals are drummed in eight 55-gallon drums, sixteen 20 gallon pails and twenty-five 5 gallon pails. The storage location is immediately adjacent to the laboratory in the South Plant at Cedar's Vicksburg facility. A weekly inspection will be made for damage or leaks. Fire-fighting equipment is present.

Cedar's contractor, Chemical Waste Management, has informed us they will be unable to transfer these lab packs to their storage facility in Millington, Tennessee, until early June, 1991.

If there are any questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

## TRANSACTION REPORT

MAY- 3-91 FRI 13:47

RECEIVE

| #  | DATE   | S. T. | NAME         | TIME   | PGS | NOTE | DP |
|----|--------|-------|--------------|--------|-----|------|----|
| 01 | MAY- 3 | 13:45 | 601 636 5767 | 1' 24" | 2   | OK   |    |

**CEDAR CHEMICAL CORPORATION**

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 216Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 3, 1991

Re: Cedar Chemical Corporation, MSD990714081  
Request for 30 Day Extension for Lab Pack Storage

Dear Mr. Fleming:

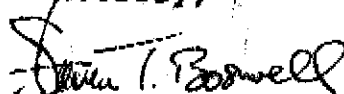
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If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

**CEDAR CHEMICAL CORPORATION**

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P. O. BOX 3  
VICKSBURG, MS 39180  
(601) 636-1231TELECOPIER COVER LETTER

PLEASE DELIVER THIS TELECOPY TO:

NAME MR. TREY FLEMINGFIRM MSDEQFROM STEVE ROSWELLDATE TODAY 5/3/91 TIME 1:45 PMTOTAL NUMBER OF PAGES INCLUDING COVER PAGE 2PLEASE CALL SOON AS POSSIBLE IF THERE ARE PROBLEMS WITH  
TRANSMITTAL.

(ROSE)

IF TOTAL NUMBER OF PAGES ABOVE WAS NOT RECEIVED PLEASE  
CALL (601) 636-1231.

TELEFAX NO. 601-636-5767

THANK YOU,



**FILE COPY**

**STATE OF MISSISSIPPI**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RAY MABUS**  
GOVERNOR

April 22, 1991

Mr. Steven T. Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Mississippi 39180

Dear Mr. Boswell:

Due to the recently discovered presence of several volatile organic compounds (VOC's) in the blanket drain system of Impoundment A of the South Plant at your facility, the Mississippi Department of Environmental Quality hereby requests that you include the following parameters in all future quarterly groundwater monitoring events in all wells:

1. Carbon tetrachloride
2. Chloroform
3. Methyl Ethyl Ketone
4. Trichloroethylene

If you have any questions regarding this issue, please contact Mr. Trey Fleming of this office at 961-5171.

Sincerely,

A handwritten signature in cursive script that reads "Toby M. Cook".

Toby M. Cook, Coordinator  
RCRA TSD Branch

TMC:TF:lfc

# MEETING W/ CEDAR CHEMICAL

April 17, 1991

Present: Toby Cook > MDEQ  
Trey Fleming

Steve Boswell - Cedar  
Caleb Dana - Woodward Clyde

Cedar presented 1st quarter 1991 groundwater monitoring results, and also a report on TCLP sediment analysis and water samples.

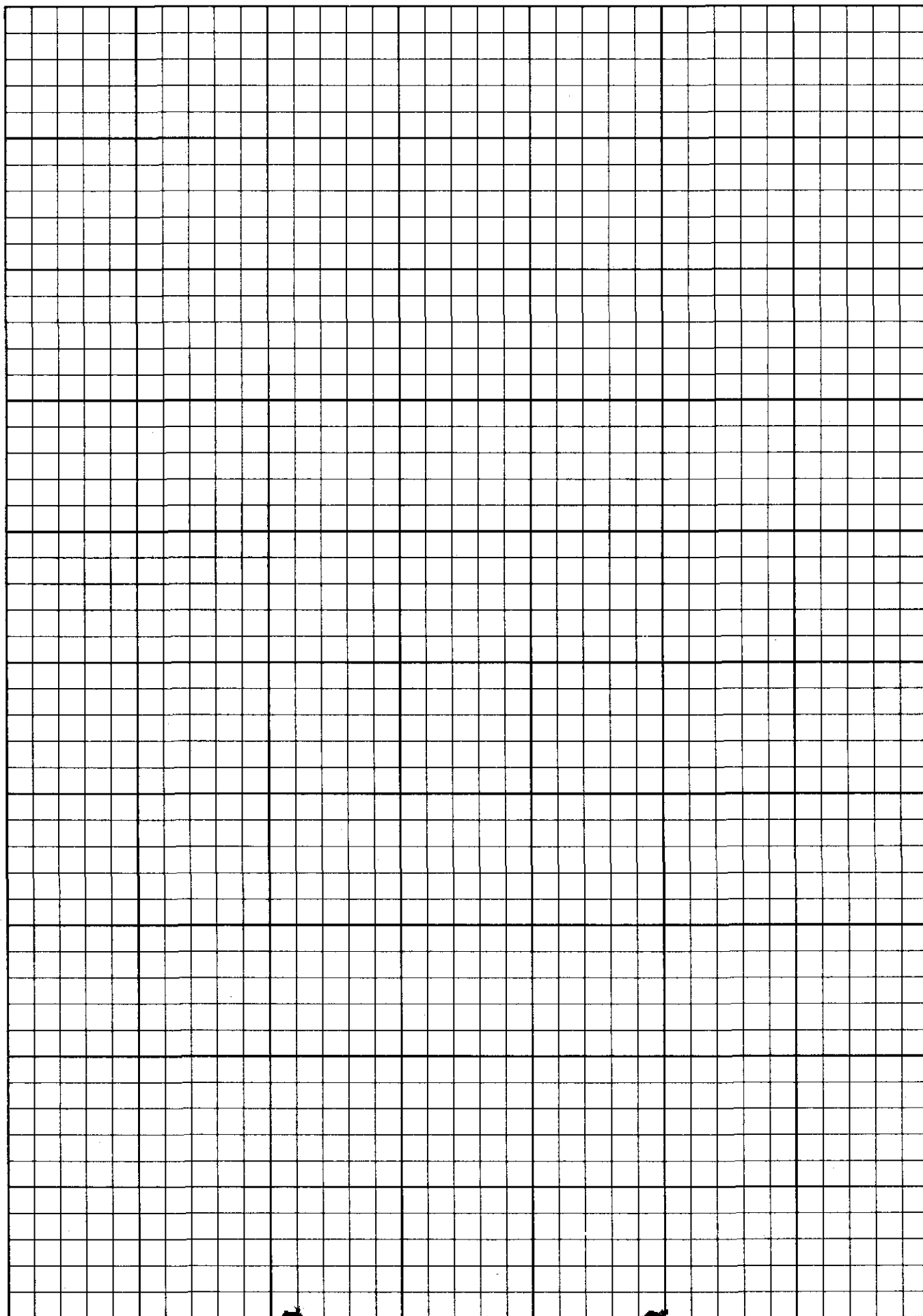
A soil sample was TCLP-tested<sup>1,1 DCE</sup> in January 1991 and failed the analysis for one parameter. Resampling data was included in this new report. Also sampling of the Solid Waste Consolidation Area (SWCA) leachate collection system and the blanket drain installed to collect inflow into Impoundment A from the northwest.

Currently, leachate from the blanket drain (1.5 gpm) no longer is discharged into Impoundment A (as it previously was), but is pumped directly to the plant's carbon absorption unit and discharged under NPDES permit.

Leachate from the SWCA is generated intermittently (based on rainfall) and is discharged into Impoundment A. Surface runoff from the South Plant also goes to Impoundment A. Impoundment A wastewater is then passed through carbon absorbers & discharged via NPDES. About 100 gpm non-process wastewater is also discharged to Impoundment A. Currently, their NPDES permit does not have discharge limits for volatiles.

They cited portions of the proposed rule for corrective actions (Federal Register July 27 1990) relating to voluntary corrective actions and their work, and the necessity for obtaining a permit.

I believe their point was that the proposed regs would allow for treatment of waste without a permit under certain circumstances. However, it is not clear that they need a permit since the mixed waste streams are not TC.  
Toby



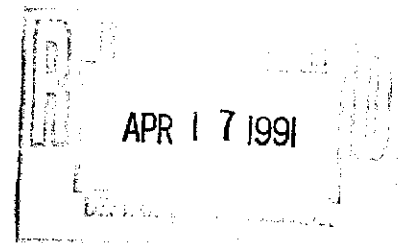
# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

HAND DELIVERED

Mr. Trey Fleming  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204



April 17, 1991

Re: Cedar Chemical Corporation  
South Pond Sediment and Liquid Analyses

Dear Mr. Fleming:

Please find attached a copy of the results of analysis of sediments and liquids associated with the Cedar Chemical "South Pond". The analyses were performed to characterize the sediments and liquids under the "toxicity" characteristic of 40 CFR 261.

Cedar wishes to meet with the MSDEQ to discuss the future handling of these materials. If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen



P 324 313 730

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL MAIL

*(See Reverse)*

U.S.G.P.O. 1989-234-555

Sent to **Steve Boswell**

Street and No. **Cedar Chemical Corp**  
**P. O. Box 3**

P.O., State and ZIP Code

**Vicksburg, MS 39180**

Postage

\$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing  
to whom and Date Delivered

Return Receipt showing to whom,  
Date, and Address of Delivery

TOTAL Postage and Fees

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Postmark or Date

PS Form 3800, June 1985

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CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (see front)**

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2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach and retain the receipt, and mail the article.
3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.
5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.
6. Save this receipt and present it if you make inquiry.

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in "RETURN TO" Space on the reverse side. Failure to do so will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:  
Mr. Steve Boswell  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, MS 39180

4. Article Number

P 324 313 730

Type of Service:

- ☐ Registered ☐ Insured  
☒ Certified ☐ COD  
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Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

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6. Signature - Agent

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7. Date of Delivery

4-2-91

8. Addressee's Address (ONLY if requested and fee paid)

UNITED STATES POSTAL SERVICE  
OFFICIAL BUSINESS



PENALTY FOR PRIVATE  
USE, \$300

**SENDER INSTRUCTIONS**

Print your name, address and ZIP Code  
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- Complete Items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RETURN  
TO



Print Sender's name, address, and ZIP Code in the space below.

DEPT. OF ENVIRONMENTAL QUALITY  
OFFICE OF POLLUTION CONTROL  
P. O. BOX 10385  
JACKSON

MS 39289-0385



**FILE COPY**

STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

March 28, 1991

Mr. Steve Boswell  
Director, Environmental Affairs  
Cedar Chemical Corporation  
Vicksburg Chemical Division  
P.O. Box 3  
Rifle Range Road  
Vicksburg, Mississippi 39180

Re: Comments on Closure Plan  
Submitted 1/15/91

Dear Mr. Boswell,

The Mississippi Department of Environmental Quality has reviewed the Closure Plan for the Returned Product Storage Area and the Hazardous Waste Drum Storage Area at Cedar submitted January 15, 1991, and has the following comments on that plan:

1. The proposed performance standards for the given target constituents, dinoseb (0.04 mg/l), arsenic (0.05 mg/l) and toxaphene (0.005 mg/l), in the hydroblast water are adequate. Also, the proposed performance standards for dinoseb (80.0 mg/kg), arsenic (80.0 mg/kg) and toxaphene (0.6 mg/kg) in soils are adequate.

In the draft RCRA Facility Assessment (RFA) Report conducted by A.T. Kearney for U.S.E.P.A., it was noted that some portions of the drum storage area were covered in what appeared to be atrazine. Therefore, the Department recommends that closure standards for atrazine be added. The standard for atrazine in the hydroblast water is 0.175 mg/l and for soils the standard is 400 mg/kg.

These atrazine levels are determined based on a reference dose (RfD) of 0.005 mg/kg-d.

The appropriate analytical method for atrazine should be selected by Cedar Chemical.

2. At least one soil sample should be collected from beneath each of the sumps for target constituent analysis.
3. The plan must describe a sampling protocol whereby soils collected from sampling points where cutting torches have been used are not affected by the use of said torches.
4. The plan calls for analysis of two concrete samples from the hazardous waste container storage area to be analyzed for the four target constituents. Additionally, two concrete samples should be collected from the off-spec product storage area and analyzed.
5. The plan calls for "plastic sheeting and other solids generated during the decontamination operations" to be wipe tested and disposed of properly, or else triple rinsed. No criteria is given as to how a decision will be made to handle such solid waste. This criteria should be clearly stated in the closure plan.

Also, no mention is made as to how solids, such as chunks of concrete dislodged by hydroblasting, be handled. This issue should be addressed in the closure plan.

6. Cedar Chemical should submit a proposed schedule of activities in its revised closure plan more detailed than that in Section 6 of the January 1991 Closure Plan.
7. Typically, organic materials such as butyrate or visqueen are not used in the collection of environmental samples for organics analyses. However, since the target constituents in this closure effort are limited to four specific compounds, organic-based materials shouldn't interfere with the required analyses.

However, Cedar may wish to consider replacing these organic materials in the plan with inorganic materials.

8. Holes in the concrete slab should be labeled in some fashion after filling so that they may be easily identified in case some subsoil samples show contamination.

9. The recommended decontamination procedure of the U.S. Environmental Protection Agency's Athens, Georgia, Laboratory is as follows:

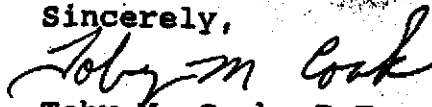
- a) wash in detergent (Alconox) solution;
- b) rinse with distilled, deionized water; and,
- c) rinse with pesticide-grade isopropanol
- d) after rinsing with isopropanol, the equipment should be allowed to air dry.

The Athens, Georgia, Laboratory of the U.S.E.P.A. has said that Threshold Limit Value (TLV) for methanol may be approached or exceeded when used in such activity.

10. At least four sample splits should be sent to an offsite laboratory for dinoseb and arsenic analyses in order to verify the accuracy of Cedar's onsite lab.
11. In the copy of the final report of closure activities to be submitted to the Mississippi Office of Pollution Control (MOPC), actual photographs, rather than photocopies of photographs, should be submitted.
12. MOPC should be notified two (2) full working days prior to sampling activities such that a representative of MOPC may observe sampling or collect splits, as desired.

The Closure Plan should be revised to address these comments and resubmitted for additional review. If you have any questions regarding these comments, please contact Mr. Trey Fleming of my staff at 961-5066.

Sincerely,



Toby M. Cook, P.E., Coordinator  
RCRA TSD Branch

cc: James A. Scarbrough, USEPA Region IV  
Caleb Dana, Woodward Clyde

A: CEDARCH1/TF

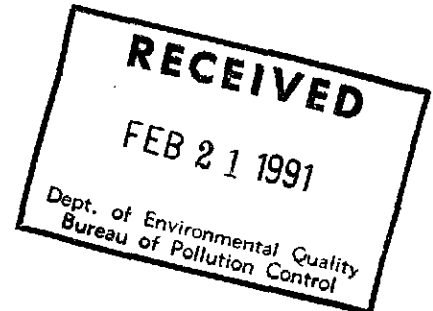
# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 413 276 207

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204



February 20, 1990

Re: Cedar Chemical Corporation  
South Pond Closure Project  
TCLP Results, Impoundment "C"

Dear Mr. Cook:

As we discussed by telephone, Cedar has re-sampled the impoundment in question along with Impoundment "B" and the "SWCA". The results of the re-sampling have not yet been received from our contractor, Woodward-Clyde. However, there has been verbal indication that the initial results have not confirmed the results reported to you in the original sampling.

It is Cedar's desire to use the extra data to confirm or reject the earlier sampling which indicates that Impoundment "C" contains sediment that may exhibit the toxicity characteristic due to the presence of 1,1-dichloroethylene, a compound Cedar has not manufactured, processed or used. Cedar expects to receive the results of the re-sampling very shortly and will furnish them to the MSDEQ for review.


Pending the evaluation of these data, Cedar will:

1. request the MSDEQ to consider the results of the earlier sampling to have been anomalous, and that the sediments are non-hazardous or,
2. proceed to develop a schedule and plan to manage the sediments as hazardous wastes.

If there are any questions concerning this matter, please contact me.

STB: pc

Sincerely,

  
Steven T. Boswell  
Director of Env. Affairs





**STATE OF MISSISSIPPI**

DEPARTMENT OF ENVIRONMENTAL QUALITY

**RAY MABUS**  
GOVERNOR

February 11, 1991

FEB. 13 1991

CERTIFIED MAIL NO. P 324 504 694

Mr. Steve Boswell  
Director, Environmental Affairs  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Mississippi 39180

Dear Mr. Boswell:

Re: TCLP Results  
Impoundment "C"

We have reviewed the sludge analysis data you submitted in connection with the closure of Impoundment "C". Your test result for 1,1-Dichloroethylene using the Toxicity Characteristic Leaching Procedure (TCLP) was reported as 1.9 mg/l. The Mississippi Hazardous Waste Management Regulations (MHWMR) Part 261.24 defines wastes containing TCLP concentrations of 0.7 mg/l of 1,1-Dichloroethylene as Hazardous Waste No. D029.

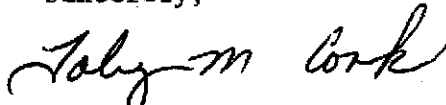
Cedar Chemical has therefore apparently managed hazardous waste in violation of the Mississippi Hazardous Waste Management Regulations. We request that you respond to this apparent violation within 10 days of receipt of this letter. This response should contain:

- (1) actions that have been taken to correct the violation,
- (2) schedule for correcting the violation, or (3) reasons that you believe the alleged violation did not exist. We will review this information before determining if further action including a penalty is warranted. Section 17-17-29 of the Mississippi Code Annotated (Supp. 1989) allows assessment of penalties not more than \$25,000 per day per violation. Failure to submit this information may result in enforcement action.

Mr. Steve Boswell  
Page -2-

If you have any questions, do not hesitate to contact me at (601)  
961-5171.

Sincerely,

A handwritten signature in cursive script that reads "Toby M. Cook".

Toby M. Cook, P. E.  
Coordinator, RCRA TSD Branch

TMC:els

cc: Mr. James H. Scarbrough, EPA

- **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address.      2. ☐ Restricted Delivery  
(Extra charge)      (Extra charge)

3. Article Addressed to:

Mr. Steve Boswell  
Director, Environmental Affairs  
Cedar Chemical Corp.  
P. O. Box 3  
Vicksburg, MS 39180

4. Article Number

P324504694

Type of Service:

- |                                               |                                                            |
|-----------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Registered           | <input type="checkbox"/> Insured                           |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD                               |
| <input type="checkbox"/> Express Mail         | <input type="checkbox"/> Return Receipt<br>for Merchandise |

Always obtain signature of addressee  
or agent and DATE DELIVERED.

8. Addressee's Address (ONLY if  
requested and fee paid)

Signature — Addressee

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6. Signature — Agent

X

7. Date of Delivery

UNITED STATES POST SERVICE

OFFICIAL BUSINESS



**SENDER INSTRUCTIONS**

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.



**PENALTY FOR PRIVATE  
USE, \$300**

**RETURN**

**TO**



Print Sender's name, address, and ZIP Code in the space below.

DEPT. OF ENVIRONMENTAL QUALITY  
BUREAU OF POLLUTION CONTROL  
P. O. BOX 10385  
JACKSON

MS 39289-0385

Mr. Steve Boswell  
Director, Environmental Affairs  
Cedar Chemical Corp.  
P. O. Box 3  
Vicksburg, MS 39180

Return to Post Office  
Box 39180  
Vicksburg, MS 39180

Return to Recipient  
Date and Time

TOTAL POSTAGE

Postmark or F



**FILE COPY**

**STATE OF MISSISSIPPI**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RAY MABUS**  
GOVERNOR

February 11, 1991

CERTIFIED MAIL NO. P 324 504 694

Mr. Steve Boswell  
Director, Environmental Affairs  
Cedar Chemical Corporation  
P. O. Box 3  
Vicksburg, Mississippi 39180

Dear Mr. Boswell:

Re: TCLP Results  
Impoundment "C"

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- (1) actions that have been taken to correct the violation,
- (2) schedule for correcting the violation, or (3) reasons that you believe the alleged violation did not exist. We will review this information before determining if further action including a penalty is warranted. Section 17-17-29 of the Mississippi Code Annotated (Supp. 1989) allows assessment of penalties not more than \$25,000 per day per violation. Failure to submit this information may result in enforcement action.

Mr. Steve Boswell  
Page -2-

If you have any questions, do not hesitate to contact me at (601)  
961-5171.

Sincerely,

Toby M. Cook, P. E.  
Coordinator, RCRA TSD Branch

TMC:els  
cc: Mr. James H. Scarbrough, EPA

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

HAND DELIVERED

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

January 15, 1991

Re: Cedar Chemical Corporation  
Hazardous Waste Drum Storage and  
Returned Product Storage Area  
Proposed Closure Plan

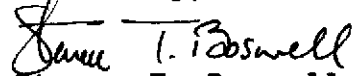
Dear Mr. Cook:

Please find attached the proposed Closure Plan for Cedar Chemical's Hazardous Waste Drum Storage Area and returned Product Storage Area at the Vicksburg facility. Cedar proposes to close the areas by hydroblasting the contaminated surfaces. Liquid wastes generated will be treated in Cedar's activated carbon units. Solid wastes which are hazardous will be taken off-site for treatment or disposal.

Sub-surface conditions will be investigated to detect if migration has occurred. A contingent plan will be implemented if clean closure cannot be achieved. Cedar intends to begin to implement the plan as soon as it is approved.

If there are any questions concerning this matter, please contact me.

Sincerely,

  
Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen  
Mr. Malone



# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

Janaury 16, 1991

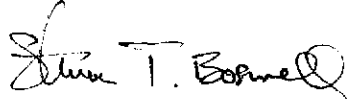
Re: TCLP Results, Impoundment "C"  
Cedar Chemical Corp.

Dear Mr. Cook:

Please find attached results of TCLP analysis of the sediment in Impoundment "C" at Cedar Chemical's South Pond Closure project. Sampling was performed September 26, 1990. A diagram of sampling point is attached. A sample from Impoundment "B" is currently being analyzed.

Please contact me with any questions you may have.

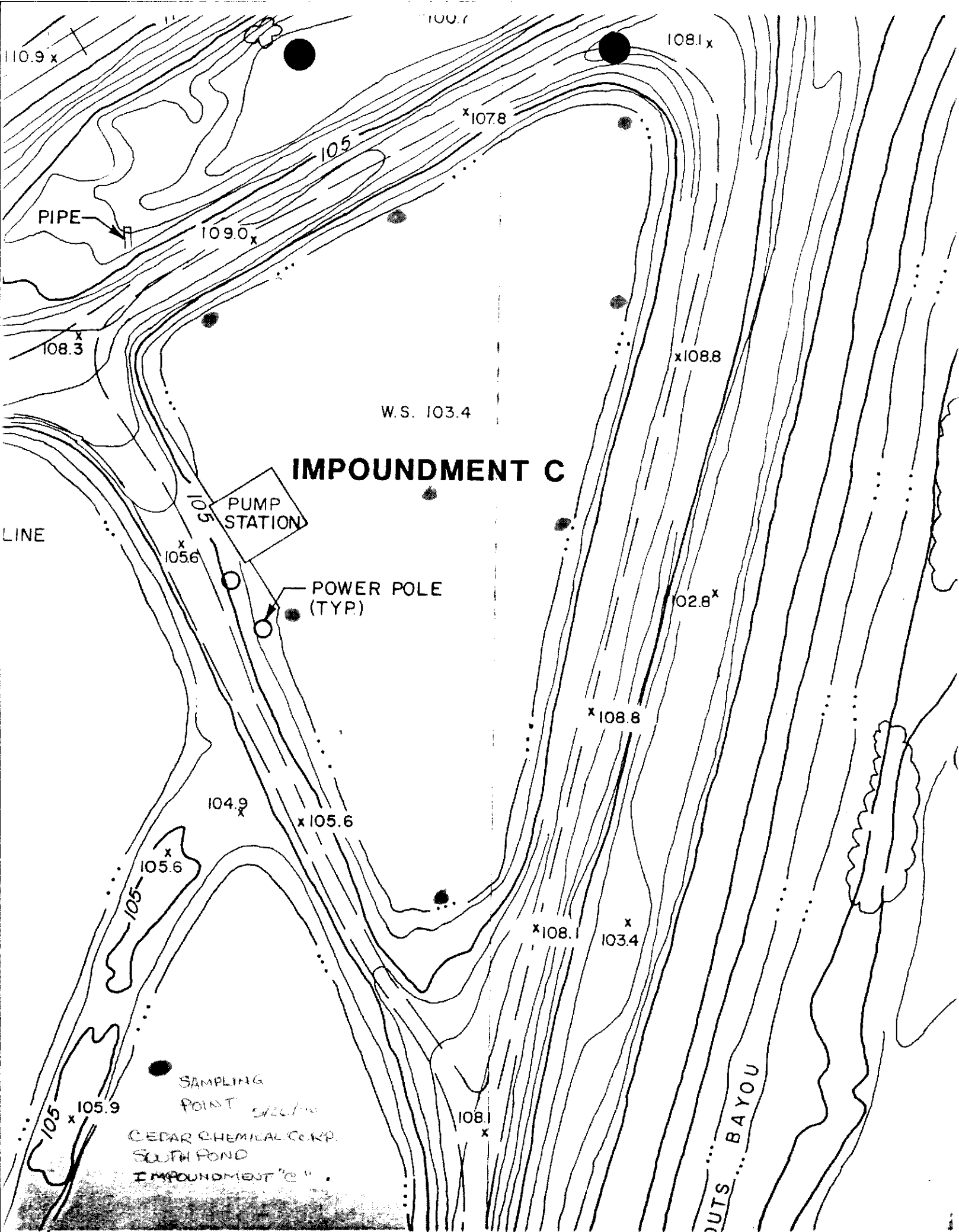
Sincerely,

  
Steven T. Boswell  
Dir. of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

DIVISION OF SOLID WASTE  
REVIEWED BY TC  
DATE 1/16/91  
COMMENTS Copy sent to EPA



CEDAR CHEMICAL CORP.  
SOUTH POND  
IMPOUNDMENT "C"



# Environmental Protection Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM  
LOCATION: VICKSBURG, MS 39180

DATE: 10/17/90

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: CLIENT  
RECEIPT DATE: 09/27/90

REPORT NO.: 16186  
PROJECT NO.:

PAGE NO.: 1

| ANALYTE                               | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|---------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                       |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER:   |       | 20676.00           |  |  |  |                      |          |       |                       |            |                      |
| 2,4,5-Trichlorophenol, TCLP Leachable | g/l   | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 1.0                   | 111        | 0                    |
| 2,4,6-Trichlorophenol, TCLP Leachable | g/l   | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 1.0                   | 111        | 0                    |
| 2,4-D, TCLP Leachable                 | g/l   | <0.01              |  |  |  | SCP                  | 10/10/90 | 11:00 | 0.1                   | 54         | 0                    |
| Silver, TCLP Leachable                | g/l   | 0.01               |  |  |  | BSC                  | 10/03/90 | 12:10 | 0.40                  | 98         | 0                    |
| Arsenic, TCLP Leachable               | g/l   | 1.6                |  |  |  | BSC                  | 10/01/90 | 22:00 | 0.200                 | 88         | 0                    |
| Barium, TCLP Leachable                | g/l   | <0.5               |  |  |  | BSC                  | 10/02/90 | 16:00 | 0.200                 | 105        | 0                    |
| Benzene, TCLP Leachable               | g/l   | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| Chlorobenzene, TCLP Leachable         | g/l   | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| Cadmium, TCLP Leachable               | g/l   | 0.01               |  |  |  | BSC                  | 10/02/90 | 10:20 | 0.40                  | 95         | 0                    |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, March 1990, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

20676.00 NORTH POND BOTTOM SAMPLE

### COLLECTION DATE/TIME:

09/26/90 09/26/90 UNK

### CERTIFICATION:



*Ray Hudnall*  
Quality Assurance and Quality Control  
*Herbert A. Johnston*  
Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 10/17/90

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: CLIENT

RECEIPT DATE: 09/27/90

REPORT NO.: 16186

PAGE NO.: 2

PROJECT NO.:

| ANALYTE                              | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|--------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                      |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER:  |       | 20676.00           |  |  |  |                      |          |       |                       |            |                      |
| Chlordane, TCLP Leachable            | g/l   | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Chloroform, TCLP Leachable           | g/l   | 0.16               |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| Chromium, TCLP Leachable             | g/l   | 0.02               |  |  |  | BSC                  | 10/01/90 | 12:45 | 1.00                  | 96         | 0                    |
| Hexavalent Chromium, TCLP Leachable  | g/l   | <0.02              |  |  |  | BSC                  | 10/01/90 | 12:45 | 1.00                  | 96         | 0                    |
| Carbon Tetrachloride, TCLP Leachable | g/l   | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| 1,2-Dichloroethane, TCLP Leachable   | g/l   | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| 1,1-Dichloroethylene, TCLP Leachable | g/l   | 1.9                |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| 2,4-Dinitrotoluene, TCLP Leachable   | g/l   | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| Endrin, TCLP Leachable               | g/l   | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, March 1990, "Test Methods for Evaluating Solid Waste" (EPA-846).

### SAMPLE DESCRIPTION:

20676.00 NORTH POND BOTTOM SAMPLE

### COLLECTION DATE/TIME:

09/26/90 09:26/90 UNK

### CERTIFICATION:



*Ray Hudnall*

Quality Assurance and Quality Control

*Herbert A. Johnston*

Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 10/17/90

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: CLIENT

RECEIPT DATE: 09/27/90

REPORT NO.: 16186

PAGE NO.: 3

PROJECT NO.:

| ANALYTE                                 | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-----------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                         |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER:     |       | 20676.00           |  |  |  |                      |          |       |                       |            |                      |
| Hexachlor-1,3-Butadiene, TCLP Leachable | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| Hexachlorobenzene, TCLP Leachable       | ug/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Hexachloroethane, TCLP Leachable        | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| Heptachlor Epoxide, TCLP Leachable      | ug/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Mercury, TCLP Leachable                 | ug/l  | <0.01              |  |  |  | BSC                  | 10/02/90 | 13:00 | 0.005                 | 102        | 0                    |
| Heptachlor, TCLP Leachable              | ug/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Lindane, TCLP Leachable                 | ug/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| m-Cresol, TCLP Leachable                | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| Methyl Ethyl Ketone, TCLP Leachable     | ug/l  | <0.01              |  |  |  | SCP                  | 10/11/90 | 08:44 | 1000                  | 107        | 6.7                  |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, March 1990, "Test Methods for Evaluating Solid Waste" (8461).

### SAMPLE DESCRIPTION:

20676.00 NORTH POND BOTTOM SAMPLE

### COLLECTION DATE/TIME:

09/26/90 09/26/90 UNK

### CERTIFICATION:



*Ray Hudnall*  
Quality Assurance and Quality Control  
*Herbert A. Forester*  
Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 10/17/90

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: CLIENT

RECEIPT DATE: 09/27/90

REPORT NO.: 16186

PAGE NO.: 4

PROJECT NO.:

| ANALYTE                             | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 20676.00           |  |  |  |                      |          |       |                       |            |                      |
| Methoxychlor, TCLP Leachable        | ug/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Nitrobenzene, TCLP Leachable        | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| o-Cresol, TCLP Leachable            | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| Lead, TCLP Leachable                | ug/l  | <0.1               |  |  |  | BSC                  | 10/01/90 | 13:30 | 0.200                 | 100        | 0                    |
| Tetrachloroethylene, TCLP Leachable | ug/l  | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| p-Cresol, TCLP Leachable            | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |
| 1,4-Dichlorobenzene, TCLP Leachable | ug/l  | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| Pentachlorophenol, TCLP Leachable   | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 1.0                   | 111        | 0                    |
| Pyridine, TCLP Leachable            | ug/l  | <0.01              |  |  |  | SCP                  | 10/07/90 | 13:00 | 0.125                 | 102        | 3.9                  |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, March 1990, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

20676.00 NORTH POND BOTTOM SAMPLE

### COLLECTION DATE/TIME:

09/26/90 09/26/90 UNK

### CERTIFICATION:



*Ray Hudnall*

Quality Assurance and Quality Control

*Herbert R. Prohaska*

Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 10/17/90

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: CLIENT

RECEIPT DATE: 09/27/90

REPORT NO.: 16186

PROJECT NO.:

PAGE NO.: 5

| ANALYTE                                 | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-----------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                         |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER:     |       | 20676.00           |  |  |  |                      |          |       |                       |            |                      |
| Selenium, TCLP Leachable                | mg/l  | <0.3               |  |  |  | BSC                  | 10/01/90 | 23:30 | 0.200                 | 92         | 0                    |
| Silver, TCLP Leachable                  | mg/l  | <0.01              |  |  |  | SCP                  | 10/10/90 | 11:00 | 0.1                   | 54         | 0                    |
| Trichloroethylene, TCLP Leachable       | mg/l  | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
| Toxic Characteristic Leaching Procedure | NA    | YES                |  |  |  | BSC                  | 09/30/90 | 14:00 | NA                    | NA         | NA                   |
| Toxaphene, TCLP Leachable               | mg/l  | <0.00002           |  |  |  | SCP                  | 10/08/90 | 13:00 | 2.5                   | 40         | 0                    |
| Vinyl Chloride, TCLP Leachable          | mg/l  | <0.001             |  |  |  | SCP                  | 10/11/90 | 08:24 | 0.02                  | 113        | 0                    |
|                                         |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                         |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                         |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, March 1990, "Test Methods for Evaluating Solid Waste" (846).

### SAMPLE DESCRIPTION:

20676.00 NORTH POND BOTTOM SAMPLE

### COLLECTION DATE/TIME:

09/26/90 09/26/90 UNK

### CERTIFICATION:



*Ray H. Huddall*  
Quality Assurance and Quality Control

*Herbert R. Johnston*  
Analytical Services

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STATE OF MISSISSIPPI  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RAY MABUS  
GOVERNOR

November 9, 1990

Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3, Rifle Range Road  
Vicksburg, MS 39180

Dear Mr. Boswell:

Re: 1989 EPA Hazardous Waste  
Report for MSD990714081

The State of Mississippi is in the process of computerizing the information submitted by hazardous waste generators on the 1989 Hazardous Waste Report. In reviewing the report for your facility, we have noted a possible error on "Form PS", page 11 of 13. Section II., Box C shows that your facility is discharging 456,000 gallons of RCRA-regulated waste water from your carbon adsorption units. Is this waste water still regulated as a hazardous waste? If this waste water is considered "treated" and is no longer considered "hazardous", then the amount of RCRA-regulated waste water being discharged is "0". Enclosed you will find a blank copy of "Form PS" for any revisions. Please revise the form, if needed and return the original within ten (10) days to Mr. Bill Stewart, Hazardous Waste Division, Office of Pollution Control, P.O. Box 10385, Jackson, MS 39289. I am also requesting that a copy of any revised form be sent to me at P.O. Box 10385, Jackson, MS 39289.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Don Christy".

Don Christy  
Environmental Scientist

Enclosure



PREPARE TODAY



LIVE TOMORROW

**CIVIL DEFENSE COUNCIL**  
**VICKSBURG—WARREN COUNTY**  
P. O. BOX 144  
**VICKSBURG, MISSISSIPPI 39181**

ROBERT WALKER  
MAYOR, CITY OF VICKSBURG  
Dwight D. Woodward  
~~WILLIAM F. LAUDERDALE, JR.~~  
PRESIDENT, BOARD OF SUPERVISORS

LUTHER WARNOCK, JR., DIRECTOR  
OFFICE 721 CLAY STREET  
PHONE 636-1544


April 27, 1990

Mr. Steve Boswell  
Cedar Chemical Company  
P. O. Box 3  
Vicksburg, MS 39181

Dear Mr. Boswell:

This is to confirm your attendance at the Hazardous Waste Conference, April 27, 1989 at the Vicksburg - Warren County Library. This conference was conducted by a representative of the American Institute of Hazardous Materials Management of San Antonio, TX and sponsored by the Vicksburg-Warren County Civil Defense Council.

Sincerely,

  
Luther Warnock, Jr.  
Director

# **HAZARDOUS WASTE MANAGEMENT: REGULATORY COMPLIANCE AND LIABILITY MANAGEMENT**



**AMERICAN INSTITUTE  
OF  
HAZARDOUS MATERIALS MANAGEMENT**

**11230 WEST AVEUNE  
SAN ANTONIO, TX 78213  
512-340-7775**

# GEORGIA INSTITUTE OF TECHNOLOGY

This is to certify that

STEVEN T. BOSWELL

has successfully completed

HAZARDOUS MATERIAL CONTROL AND  
EMERGENCY RESPONSE

conducted by  
GEORGIA TECH  
EDUCATION EXTENSION  
Atlanta, Georgia

OCTOBER 19-23, 1990

87 STB



A handwritten signature in black ink, appearing to read "John P. Crecine".

Dr. John P. Crecine  
President

A handwritten signature in black ink, appearing to read "Clifford R. Bragdon".

Dr. Clifford R. Bragdon  
Director, Education Extension  
Associate Vice President for Academic Affairs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

AUG 27 1990

4WD-RCRAFFB

Mr. Steven T. Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation, *Vicksburg*  
24th Floor  
5100 Poplar Avenue  
Memphis, Tennessee 38137

RE: Receipt of Certification/Demonstration Submitted Pursuant to  
40 CFR 268.8  
Facility EPA ID No.: MSD990714081;

Transmittal of Outreach on Final Rules for Toxicity  
Characteristic (TC) and Land Disposal Restrictions (LDR)  
Third Third Scheduled Wastes

Dear Mr. Boswell:

This letter is to acknowledge receipt by the Director of the  
Waste Management Division, of the certifications and  
demonstrations submitted pursuant to 40 CFR 268.8 by Cedar  
Chemical Corporation.

The certification and demonstration for "soft hammer" waste, as  
outlined in 40 CFR 268.8, is self-implementing. Section  
268.8(e) states that:

Once the certification is received by EPA, and provided that  
the wastes have been treated by the practically available  
technology (if any), determined by the generator to yield  
the greatest environmental benefit, the wastes may be  
disposed in a landfill or surface impoundment unit meeting  
the requirements of 40 CFR 268.5(h)(2), unless otherwise  
prohibited by EPA.

Effective May 8, 1990, 40 CFR 268.8 is no longer in effect  
(Federal Register, Vol. 55, 22688, June 1, 1990).

A second purpose of this letter is to offer guidance on the following subjects:

- LDR regulations for Third Third Scheduled Wastes (3rd 3rds) promulgated in the Federal Register, Vol. 55, 22520-22720, June 1, 1990; and
- Wastes subject to the TC Rule (TC wastes).

As a result of regulations promulgated in the Federal Register referenced above, almost all RCRA hazardous wastes are now subject to LDR treatment standards. The "soft hammer" regulations of 40 CFR §§268.8, 268.33(f), and 268.34(h) are no longer in effect. However, all other parts of 40 CFR 268 (the LDR regulations) are still in effect, and some additional requirements and parts have been added. All wastes addressed in the Third Third Rule have been granted a national capacity variance of at least three months. Therefore, the earliest effective date for Third Third wastes is August 8, 1990. Please note that all such wastes which contain halogenated organic compounds listed in Appendix III of 40 CFR 268 are currently California List wastes, subject to 40 CFR §268.32 and the treatment technology of §268.42. On August 8, 1990, these wastes are prohibited from land disposal unless the specific treatment standards promulgated for their waste codes in the Third Third Rule are met.

The Third Third Rule has made major amendments and additions to LDR requirements, including those in the following sections:

- §268.7: Notices, certifications, waste analysis;
- §268.3: The dilution prohibition;
- §268.2: Definitions;
- §§268.41 through 268.43: Tables of treatment standards: hundreds of added waste codes plus format changes; all previously set standards are repeated in 55 FR 22689-22714, June 1, 1990; many metal-containing wastes and some organic wastes have recovery as the LDR treatment standard.
- 40 CFR 268 Appendices IV and V: Treatment technologies as LDR standards for lab packs containing certain kinds of wastes.
- §148: LDR Requirements for underground injection wells (UIC program);

- §262.11: Generators must determine if a listed waste also has a characteristic that is not addressed by the listing: *major change in the way generators determine what waste codes to assign to their wastes.*

The TC Final Rule was signed by EPA Administrator William Reilly on March 5, 1990, and was published in the Federal Register, Vol. 55, 11789-11877, March 29, 1990. A correction to this final rule was published in the Federal Register, Vol. 55, 26986-26998, June 29, 1990. A second technical correction is scheduled for publication shortly. TC waste handlers who had not previously notified EPA and obtained an EPA ID Number were required to notify of regulated waste activity by June 23, 1990. Treatment, storage, and disposal facilities (TSDFs) and large quantity generators (total hazardous waste greater than or equal to 1000 kg, approximately 2200 lb, in a calendar month) must begin managing TC wastes as hazardous wastes by September 25, 1990. By March 29, 1991, TC waste must be managed as hazardous waste by small quantity generators (total hazardous waste greater than 100 kg but less than 1000 kg in a calendar month).

On September 25, 1990, the TC will replace the Extraction Procedure Toxicity Characteristic (EP Tox) for determining whether a solid waste is hazardous by the characteristic of toxicity, due to the presence of leachable hazardous constituents. The Toxicity Characteristic Leaching Procedure (TCLP), Method 1311, is the leach test which will replace the EP Toxicity leach test, Method 1310, for producing a waste extract to be analyzed for the presence of hazardous constituents.

The TC Rule adds 25 additional organic constituents to the 8 metals and 6 pesticide/herbicide constituents of EP Tox. The TC waste codes for the 14 EP Tox constituents remain the same (D004-D017). The new TC waste codes range from D018 through D043, and are in effect on September 25, 1990.

To summarize briefly the TC requirements:

- On September 25, 1990, the TC Rule adds new requirements for existing facilities, both permitted and interim status; newly regulated facilities; and large quantity generators.
- The notification date for all newly regulated generators and TSDFs was June 23, 1990.
- The effective date for small quantity generators to manage their TC wastes as hazardous is March 29, 1991.

- Also by March 29, 1991, newly regulated land disposal facilities must submit Part B applications and demonstrate compliance with groundwater monitoring, financial assurance and insurance requirements; or lose interim status (similar to the LOIS of 1985).

The new TC wastes, D018-D043, do not have LDR treatment standards at the present time. The RCRA statute requires EPA to set LDR treatment standards for newly listed or identified wastes within six months of the date of promulgation (by September 25, 1990 for TC wastes). No "hard hammer" prohibiting land disposal is specified by the statute if the Agency fails to meet this deadline. LDR treatment standards for the current EP Tox wastes, D004-D017, are those promulgated in the Third Third Rule. The number of wastes containing EP Tox constituents that, as generated, would fail the TCLP and pass the EP, is expected to be small. Until the Agency sets LDR treatment standards for TC wastes, the wastes just described, which fail only the TCLP, would not be subject to LDR.

Enclosed are copies of the following documents which provide information on the LDR Third Third Final Rule and the TC Rule:

Third Third:


1. 55 FR 22520-22720, June 1, 1990
2. Environmental Fact Sheet

TC Rule:

1. 55 FR 11798-11877, March 29, 1990
2. 55 FR 26986-26998, June 29, 1990
3. Environmental Fact Sheet
4. Tips for Generators
5. Guidance for Small Quantity Generators
6. Industry-Specific Informational Brochures

If you have questions, please contact Dr. Judy Sophianopoulos of my staff at (404) 347-7603.

Sincerely yours,



Doyle T. Brittain  
Chief, West Unit  
Waste Compliance Section

Enclosures

cc: Sam Mabry, Director, MDEQ, Hazardous Waste Division





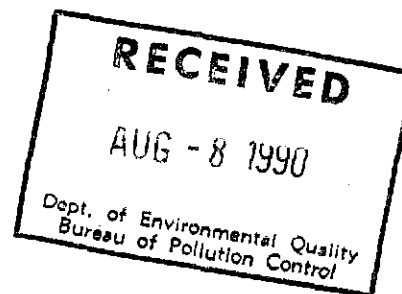
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

AUG 01 1990

Mr. Steven T. Boswell  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, MS 39180



Reference: Cedar Chemical Corporation, Vicksburg, MS;  
EPA I.D. No. MSD990714081; VSI Notification Letter and  
Agenda

Dear Mr. Boswell:

The Environmental Protection Agency Region IV is conducting a RCRA Facility Assessment (RFA) of the Cedar Chemical Corporation, Vicksburg, MS. The Hazardous and Solid Waste Amendments of 1984 (HSWA) provide EPA authority under RCRA to require comprehensive corrective actions on releases of hazardous constituents to air, surface water, soil, and groundwater at all facilities which manage hazardous waste. The RFA includes a review of the pertinent files at the regional and state offices, as well as a Visual Site Inspection (VSI) of the facility, and if necessary, a sampling visit.

The objectives of the VSI are to identify all Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) located at the facility in order to determine their potential for past or ongoing releases of hazardous constituents. The VSI will be conducted by A.T. Kearney, a subcontractor to CDM Federal Programs Corporation under EPA Contract 68-W9-0004. The VSI is presently scheduled for July 31 and August 1, 1990.

Attachment A is a tentative agenda and inspection plan for the VSI. The agenda also includes a list of the potential SWMUs and AOCs identified from the file material during the preliminary review. Attachment B is a summary of information needed in order to fill in information gaps which have been identified to date. These attachments will be reviewed with facility personnel at the beginning of the VSI in order to facilitate the actual inspection. At that time the VSI schedule will be adjusted as of all current and past SWMUs, and a review of current waste management practices at the facility. The inspection will encompass all current and past waste handling, storage, treatment, staging, transfer, and disposal areas including both indoor and outdoor units. During the VSI, photographs will be taken to document the condition and location of all SWMUs and AOCs identified during the VSI, and facility waste management practices in general.

Mr. Steven T. Boswell

Page 2

In preparation for the VSI, the contractor is required to identify any potentially hazardous conditions likely to be encountered during the VSI, and if necessary, prepare a safety plan to deal with anticipated hazards. The contractor will contact you prior to the VSI in order to obtain specific information on health and safety requirements at your facility, and specific information on the materials handled there.

The VSI team will consist of two technical representatives from EPA's contractor; personnel from state and federal agencies may also join the VSI.

If you have any questions concerning the VSI, please contact the EPA Work Assignment Manager, Mr. Doyle Brittain, who can be reached at 404/347-7603.

Sincerely,



James H. Scarborough, P.E., Chief  
RCRA and Federal Facilities Branch  
Waste Management Division

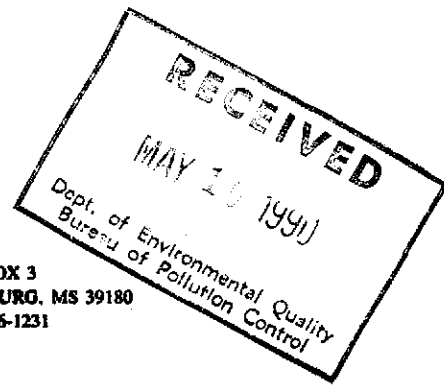
Enclosure

cc: T. Cook, MDEQ  
A. Isolda, CDM FPC  
J. Levin, A.T. Kearney

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P. O. BOX 3  
VICKSBURG, MS 39180  
(601) 636-1231



CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 317

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 8, 1990

Re: Cedar Chemical Corporation  
South Pond Closure Project

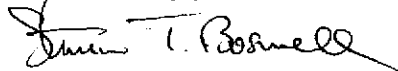
Dear Mr. Cook:

As you requested in your letter of March 27, 1990, Cedar has sampled and analyzed the sludges removed from the South Pond using the Toxicity-Characteristic Leaching Procedure. The results of the analysis are attached.

A diagram of the SWCA is attached and shows the location of the samples which were composited for analysis. Each location was sampled at a depth of six to eight inches beneath the surface.

If there are any questions concerning this matter, please contact me.

Sincerely,

  
Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 5/17/90

COMMENTS Copy sent to EPA



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 04/27/90

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

COLLECTED BY: EPS-TC

RECEIPT DATE: 04/05/90

REPORT NO.: 13093

PAGE NO.: 1

PROJECT NO.:

| ANALYTE                               | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                    |
|---------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|--------------------|
|                                       |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER:   |       | 16949.00           |  |  |  |                      |          |       |                       |            |                    |
| 2,4-D, TCLP Leachable                 | ug/l  | <0.1               |  |  |  | SCP                  | 04/25/90 | 11:00 | NA                    | NA         | NA                 |
| Halogenated Volatiles, TCLP Leachable | ug/l  | <5                 |  |  |  | SCP                  | 04/26/90 | 10:36 | 40                    | 90         | NA                 |
| Aromatic Volatiles, TCLP Leachable    | ug/l  | <5                 |  |  |  | SCP                  | 04/26/90 | 10:36 | 40                    | 90         | NA                 |
| 8080 Pesticides, TCLP Leachable       | ug/l  | <0.1               |  |  |  | SCP                  | 04/25/90 | 09:30 | NA                    | NA         | NA                 |
| 8270 Semi Volatiles, TCLP Leachable   | ug/l  | <0.01              |  |  |  | SCP                  | 04/25/90 | 10:00 | 0.24                  | 116        | 5.1                |
| Silver, TCLP Leachable                | ug/l  | 0.02               |  |  |  | BSC                  | 04/12/90 | 10:50 | 0.40                  | 102        | 0                  |
| Arsenic, TCLP Leachable               | ug/l  | <0.3               |  |  |  | BSC                  | 04/10/90 | 21:00 | 0.200                 | 104        | 0                  |
| Barium, TCLP Leachable                | ug/l  | 2.1                |  |  |  | BSC                  | 04/16/90 | 07:00 | 0.200                 | 92         | 0                  |
| Cadmium, TCLP Leachable               | ug/l  | 0.03               |  |  |  | BSC                  | 04/17/90 | 10:00 | 0.40                  | 95         | 0                  |

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

16949.00 SPECIAL SOIL SAMPLE

### COLLECTION DATE/TIME:

04/05/90 04/05/90 11:07

### CERTIFICATION:



*John Brown*  
Quality Assurance and Quality Control  
*Norbert A. Johnson*  
Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# Analytical Services

5360 I-55 North • Jackson, MS 39211 • Telephone (601) 956-1400 • FAX (601) 956-2365

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM

DATE: 04/27/90

COLLECTED BY: EPS-TC

REPORT NO.: 13093

PAGE NO.: 2

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS.

RECEIPT DATE: 04/05/90

PROJECT NO.:

### ANALYTE

### UNITS

### LABORATORY RESULTS

### ANALYSIS INFORMATION

### BATCH QUALITY CONTROL

### REGULATORY LIMIT

### ANALYST

### DATE

### TIME

### SPIKE VALUE

### % RECOVERY

### RELATIVE % DEVIATION

TEST RESULTS FOR SAMPLE LOG NUMBER:

16949.00

Chromium, TCLP Leachable

mg/l

0.26

BSC

04/16/90

13:00

1.00

97

0

Hexavalent Chromium, TCLP Leachable

mg/l

0.06

BSC

04/16/90

13:00

1.00

97

0

Mercury, TCLP Leachable

mg/l

<0.01

BSC

04/11/90

08:30

0.005

104

0

Lead, TCLP Leachable

mg/l

<0.1

BSC

04/16/90

16:00

0.200

98

0

Selenium, TCLP Leachable

mg/l

<0.3

BSC

04/10/90

23:30

0.200

90

25

Silver, TCLP Leachable

mg/l

<0.1

SCP

04/25/90

11:00

NA

NA

NA

Toxic Characteristic Leaching Procedure

NA

YES

TCT

04/09/90

12:00

NA

NA

NA

### SUPPLEMENTARY INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

16949.00 SPECIAL SOIL SAMPLE

### COLLECTION DATE/TIME:

04/05/90 04/05/90 11:07

### CERTIFICATION:



*John Brown*  
Quality Assurance and Quality Control  
*Herbert A. Johnson*  
Analytical Services

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.

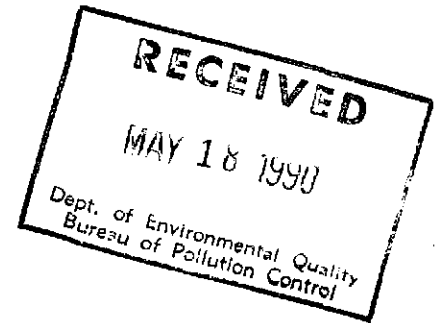


Price

CEDAR CHEMICAL CORP.  
VICKSBURG CHEMICAL DIVISION  
SOUTH POND  
SOLID WASTE CONSOLIDATION AREA (SWCA)  
SAMPLING POINTS FOR TCLP COMPOSITE SAMPLE  
MARCH 5, 1990

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348



CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 320

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204

May 16, 1990

Re: Cedar Chemical Corporation  
South Pond Closure Project

Dear Mr. Cook:

As we discussed by telephone, attached is a letter from Mr. John Broussard of Environmental Protection Systems in reference to the TCLP analysis of pond sediment recently performed.

If there are any questions concerning this matter, please contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Steven T. Boswell".

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

May 11, 1990

Mr. Steve Boswell  
Vicksburg Chemical  
Rifle Range Road  
Vicksburg, MS 39180

Dear Mr. Boswell:

On the sample we analyzed for TCLP parameters, EPS sample # 16949 and report # 13093, our data system did not breakdown the organic parameters by compound. The following organic compounds were analyzed and found to be less than detection limit for that sample:

|                                |                       |
|--------------------------------|-----------------------|
| Benzene                        | Hexachloroethane      |
| Carbon Tetrachloride           | Lindane               |
| Chlordane                      | Methoxychlor          |
| Chlorobenzene                  | Methyl ethyl ketone   |
| Chloroform                     | Nitrobenzene          |
| o-Cresol                       | Pentachlorophenol     |
| p-Cresol                       | Pyridine              |
| m-Cresol                       | Tetrachloroethylene   |
| Cresol                         | Toxaphene             |
| 2,4-D                          | Trichloroethylene     |
| 1,4-Dichlorobenzene            | 2,4,5-Trichlorophenol |
| 1,2-Dichlorobenzene            | 2,4,6-Trichlorophenol |
| 2,4-Dinitrotoluene             | 2,4,5-TP Silvex       |
| Endrin                         | Vinyl chloride        |
| Heptachlor (and its hydroxide) | Hexachlorobenzene     |
| Hexachlorobutadiene            |                       |

Please accept our apology for this inconvenience. If you need further information, or you have any questions, please do not hesitate to contact me.

Sincerely,



John Broussard

JB/cm





**FILE COPY**

**STATE OF MISSISSIPPI**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RAY MABUS**  
GOVERNOR

March 27, 1990

Mr. Steve Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39181

Dear Mr. Boswell:

Re: Cedar Chemical Corporation  
South Pond Closure Project

As we discussed in our telecon of March 26, 1990, the Bureau requests that the sludge removed from your wastewater pond be sampled and tested for the toxicity characteristic constituents, using the Toxicity-Characteristic Leaching Procedure.

A copy of the toxicity characteristic constituent list is enclosed. If you have any questions, please contact me at (601) 961-5171.

Sincerely,

A handwritten signature in cursive script that reads "Toby M. Cook".

Toby M. Cook, P.E.  
Hazardous Waste Division

TMC-40:lr  
Enclosure

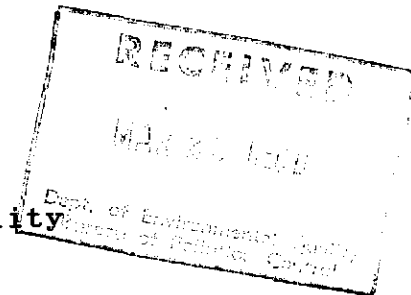
# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 850 518 309

Mr. Toby Cook  
Environmental Engineer  
Mississippi Department of Environmental Quality  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, MS 39204



March 23, 1990

Re: Cedar Chemical Corporation  
South Pond Closure Project

Dear Mr. Cook:

Please find enclosed copies of the sediment analyses for Area "A" of the South Pond at the Cedar Chemical Vicksburg Plant. The sediments were analyzed for total constituents and for the extractable amounts using the Extraction Procedure described in 40 CFR 261, Appendix II.

If there are any questions concerning this matter, please contact me.

Sincerely,

Steven T. Boswell  
Director of Env. Affairs

STB: pc

xc: Mr. Ahlers  
Mr. Madsen

DIVISION OF SOLID WASTE

REVIEWED BY

TC

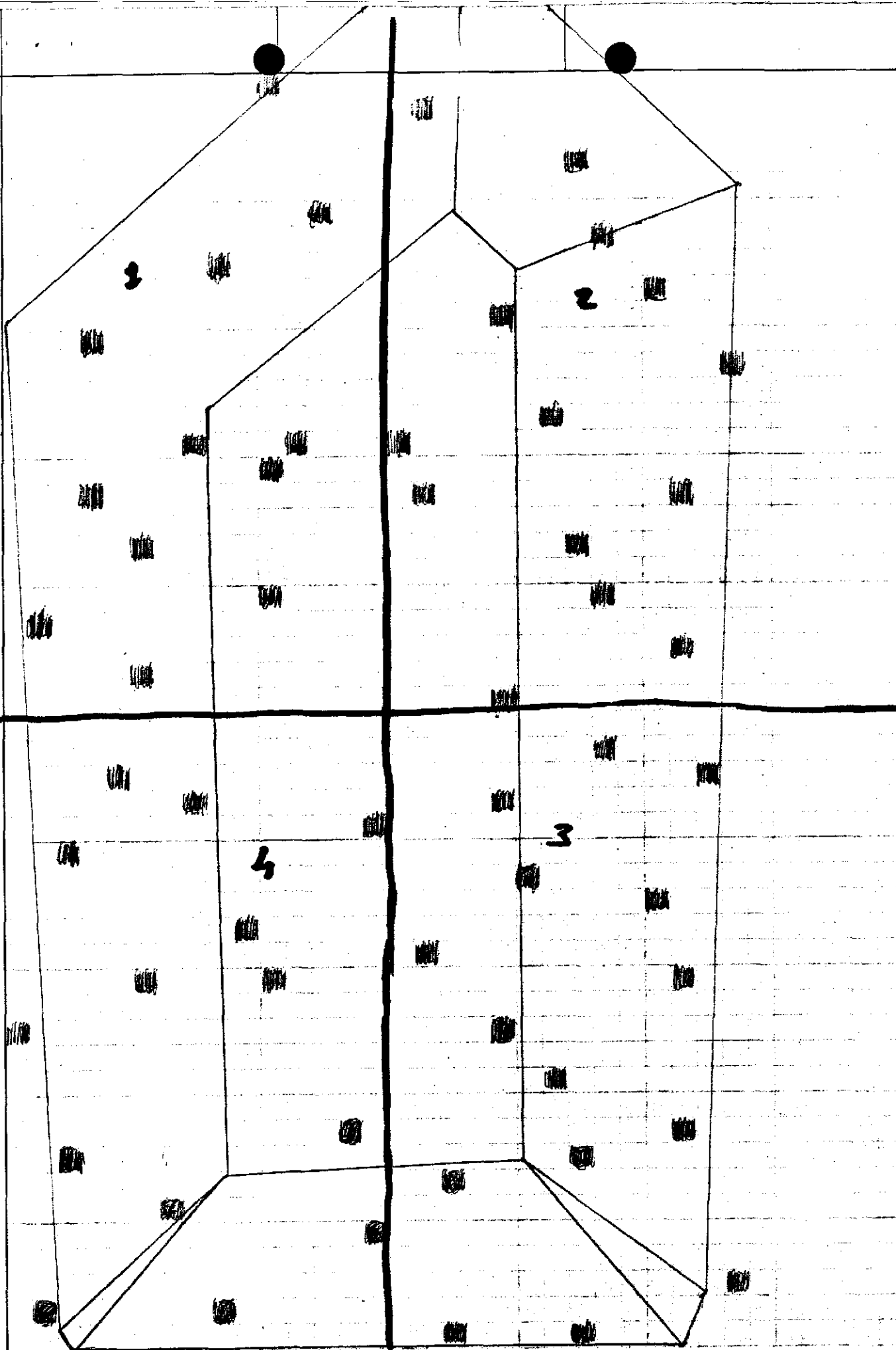
DATE

3/27/90

COMMENTS

# 10 POUNDMENT A SAMPLING PLAN

ALL LOCATIONS TO BE SAMPLED  
USING A 3/4" SOIL SAMPLER TO A DEPTH OF 12"  
EACH ZONE TO BE COMPOSITED TO FILL ONE LITER CONTAINER



43 321 50 SHEETS 1 SQUARE  
43 322 50 SHEETS 1 SQUARE  
43 323 50 SHEETS 1 SQUARE  
43 324 50 SHEETS 1 SQUARE



From: American Laboratories and  
Research Services, Inc.  
P.O. Box 15609  
Hattiesburg, MS 39402-5609  
601-264-9320

Date: December 30, 1990

To: Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3  
Vicksburg, MS 39180

The following analytical results have been obtained for the  
indicated sample which was submitted to this laboratory:

Sample I.D. AA02377

Sample location: VICKS Cedar Impoundment A - Area 1  
Collected by: S BOSWELL Collection date: 10/18/89 Time:  
Laboratory submittal date: 10/20/89 Time: 19:00  
Received by: RLH Validated by: RLH

Parameter: Selected Pesticides  
Method reference: SW846 8080  
Result: see appended report  
Date started: 11/05/89  
Time started: 03:46

Date finished: 11/22/89  
Analyst: RLH

Parameter: Arsenic  
Method reference: EPA 206.2  
Result: 22 mg/Kg  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Parameter: Selected Pesticides by EP TOX  
Method reference: EPA  
Result: see appended report  
Date started: 11/05/89  
Time started: 01:27

Date finished: 11/22/89  
Analyst: RLH

Mr. Steven Boswell  
Page: 2  
December 30, 1990

Sample I.D. AA02377 (continued)

Parameter: Arsenic by EP TOX

Method reference:

Result: .027 mg/L

Date started: 10/30/89

Time started: 14:00

MDL or sensitivity: .002

Date finished: 10/30/89

Analyst: SPF

Data for Selected Pesticides ug/Kg

| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, total         | 380000        | 100           |
| Dinoseb, total          | 95000         | 100           |
| Methyl Parathion, total | Not Det       | 90            |
| Bladex, total           | 32000         | 100           |
| Toxaphene, total        | Not Det       | 200           |

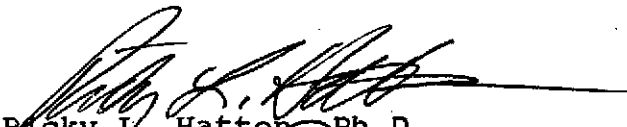
Data for Selected Pesticides by EP TOX ug/L

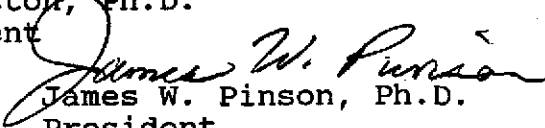
| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, EPTOX         | 36000         | 20            |
| Dinoseb, EPTOX          | 12000         | 20            |
| Methyl Parathion, EPTOX | Not Det       | 20            |
| Bladex, EPTOX           | 1500          | 20            |
| Toxaphene, EPTOX        | Not Det       | 60            |

Comments:

Reference Lab Report No. R923.

If there are any questions regarding this data, please call.

  
Ricky L. Hatton, Ph.D.  
Vice President

Reviewed By:   
James W. Pinson, Ph.D.  
President

From: American Laboratories and  
Research Services, Inc.  
P.O. Box 15609  
Hattiesburg, MS 39402-5609  
601-264-9320

Date: December 30, 1990

To: Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3  
Vicksburg, MS 39180

The following analytical results have been obtained for the  
indicated sample which was submitted to this laboratory:

Sample I.D. AA02378

Sample location: VICKS Cedar Impoundment A - Area 2

Collected by: S BOSWELL Collection date: 10/18/89 Time:

Laboratory submittal date: 10/20/89 Time: 19:00

Received by: RLH Validated by: RLH

Parameter: Selected Pesticides  
Method reference: SW846 8080  
Result: see appended report  
Date started: 11/05/89  
Time started: 04:21

Date finished: 12/22/89  
Analyst: RLH

Parameter: Arsenic  
Method reference: EPA 206.2  
Result: 27 mg/Kg  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Parameter: Selected Pesticides by EP TOX  
Method reference: EPA  
Result: see appended report  
Date started: 11/05/89  
Time started: 02:02

Date finished: 12/22/89  
Analyst: RLH

Mr. Steven Boswell  
Page: 2  
December 30, 1990

Sample I.D. AA02378 (continued)

Parameter: Arsenic by EP TOX  
Method reference:  
Result: .093 mg/L  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Data for Selected Pesticides ug/Kg


| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, total         | 520000        | 100           |
| Dinoseb, total          | 11000         | 100           |
| Methyl Parathion, total | 100           | 90            |
| Bladex, total           | 5800          | 100           |
| Toxaphene, total        | Not Det       | 200           |

Data for Selected Pesticides by EP TOX ug/L

| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, EPTOX         | 81000         | 20            |
| Dinoseb, EPTOX          | 1300          | 20            |
| Methyl Parathion, EPTOX | Not Det       | 20            |
| Bladex, EPTOX           | 430           | 20            |
| Toxaphene, EPTOX        | Not Det       | 60            |

Comments:  
Reference Lab Report No. R923.

If there are any questions regarding this data, please call.

  
Ricky L. Hatton, Ph.D.  
Vice President

Reviewed By:   
James W. Pinson, Ph.D.  
President

From: American Laboratories and  
Research Services, Inc.  
P.O. Box 15609  
Hattiesburg, MS 39402-5609  
601-264-9320

Date: December 30, 1990

To: Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3  
Vicksburg, MS 39180

The following analytical results have been obtained for the  
indicated sample which was submitted to this laboratory:

Sample I.D. AA02379

Sample location: VICKS Cedar Impoundment A - Area 3  
Collected by: S BOSWELL Collection date: 10/18/89 Time:  
Laboratory submittal date: 10/20/89 Time: 19:00  
Received by: RLH Validated by: RLH

Parameter: Selected Pesticides  
Method reference: SW846 8080  
Result: see appended report  
Date started: 11/05/89  
Time started: 04:56

Date finished: 12/22/89  
Analyst: RLH

Parameter: Arsenic  
Method reference: EPA 206.2  
Result: 16 mg/Kg  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Parameter: Selected Pesticides by EP TOX  
Method reference: EPA  
Result: see appended report  
Date started: 11/05/89  
Time started: 02:02

Date finished: 12/22/89  
Analyst: RLH



Mr. Steven Boswell  
Page: 2  
December 30, 1990

Sample I.D. AA02379 (continued)

Parameter: Arsenic by EP TOX  
Method reference:  
Result: .065 mg/L  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Data for Selected Pesticides ug/Kg

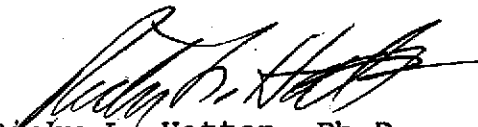
| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, total         | 480000        | 100           |
| Dinoseb, total          | 1500          | 100           |
| Methyl Parathion, total | Not Det       | 90            |
| Bladex, total           | 3100          | 100           |
| Toxaphene, total        | Not Det       | 200           |

Data for Selected Pesticides by EP TOX ug/L

| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, EPTOX         | 86000         | 20            |
| Dinoseb, EPTOX          | 300           | 20            |
| Methyl Parathion, EPTOX | Not Det       | 20            |
| Bladex, EPTOX           | 600           | 20            |
| Toxaphene, EPTOX        | Not Det       | 60            |

Comments:  
Reference Lab Report No. R923.

If there are any questions regarding this data, please call.

  
Ricky L. Hatton, Ph.D.  
Vice President

Reviewed By:   
James W. Pinson, Ph.D.  
President

From: American Laboratories and  
Research Services, Inc.  
P.O. Box 15609  
Hattiesburg, MS 39402-5609  
601-264-9320

Date: December 30, 1990

To: Mr. Steven Boswell  
Cedar Chemical Company  
P.O. Box 3  
Vicksburg, MS 39180

The following analytical results have been obtained for the  
indicated sample which was submitted to this laboratory:

Sample I.D. AA02380

Sample location: VICKS Cedar Impoundment A - Area 4

Collected by: S BOSWELL Collection date: 10/18/89 Time:

Laboratory submittal date: 10/20/89 Time: 19:00

Received by: RLH Validated by: RLH

Parameter: Selected Pesticides  
Method reference: SW846 8080  
Result: see appended report  
Date started: 11/05/89  
Time started: 05:30

Date finished: 12/22/89  
Analyst: RLH

Parameter: Arsenic  
Method reference: EPA 206.2  
Result: 18 mg/Kg  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Parameter: Selected Pesticides by EP TOX  
Method reference: EPA  
Result: see appended report  
Date started: 11/05/89  
Time started: 03:12

Date finished: 12/22/89  
Analyst: RLH

Mr. Steven Boswell  
Page: 2  
December 30, 1990

Sample I.D. AA02380 (continued)

Parameter: Arsenic by EP TOX  
Method reference:  
Result: .041 mg/L  
Date started: 10/30/89  
Time started: 14:00

MDL or sensitivity: .002  
Date finished: 10/30/89  
Analyst: SPF

Data for Selected Pesticides ug/Kg

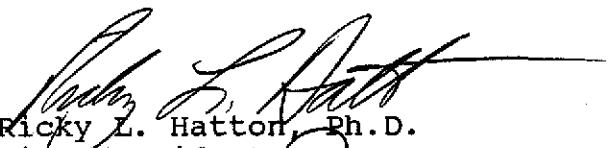
| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, total         | 1200000       | 100           |
| Dinoseb, total          | 22000         | 100           |
| Methyl Parathion, total | 190           | 90            |
| Bladex, total           | 59000         | 100           |
| Toxaphene, total        | Not Det       | 200           |

Data for Selected Pesticides by EP TOX ug/L

| Component Name          | Concentration | Component MDL |
|-------------------------|---------------|---------------|
| Atrazine, EPTOX         | 66000         | 20            |
| Dinoseb, EPTOX          | 2200          | 20            |
| Methyl Parathion, EPTOX | Not Det       | 20            |
| Bladex, EPTOX           | 4400          | 20            |
| Toxaphene, EPTOX        | Not Det       | 60            |

Comments:  
Reference Lab Report No. R923.

If there are any questions regarding this data, please call.

  
Ricky L. Hatton, Ph.D.  
Vice President

Reviewed By:   
James W. Pinson, Ph.D.  
President

[illegible]

1986 - Last production of pesticides / herbicides (Dinoseb)

1986 - State Trade Commission action regarding surface impoundment as a TSD

1980-1983 - Interim status for storage units

IM (Interim Measures)  
w/ Kelen

Mgmt of Containers : ~~should be no drums~~ should be no drums

Storage Area - Look at Storage area in Part A  
submit a Closure Plan  
area with fire extinguisher 60 DAYS

Mgmt of Tanks - could go in RFI

Surface Impoundment - Status + Closure + Retrofit 60 DAYS  
add response  
Well #1 assessment

Decree vs Adm Order

\* Consent Decree - U.S. Judicial Court  
Public comment Period of 30 DAYS  
"Civil Action" as opposed to Adm Order

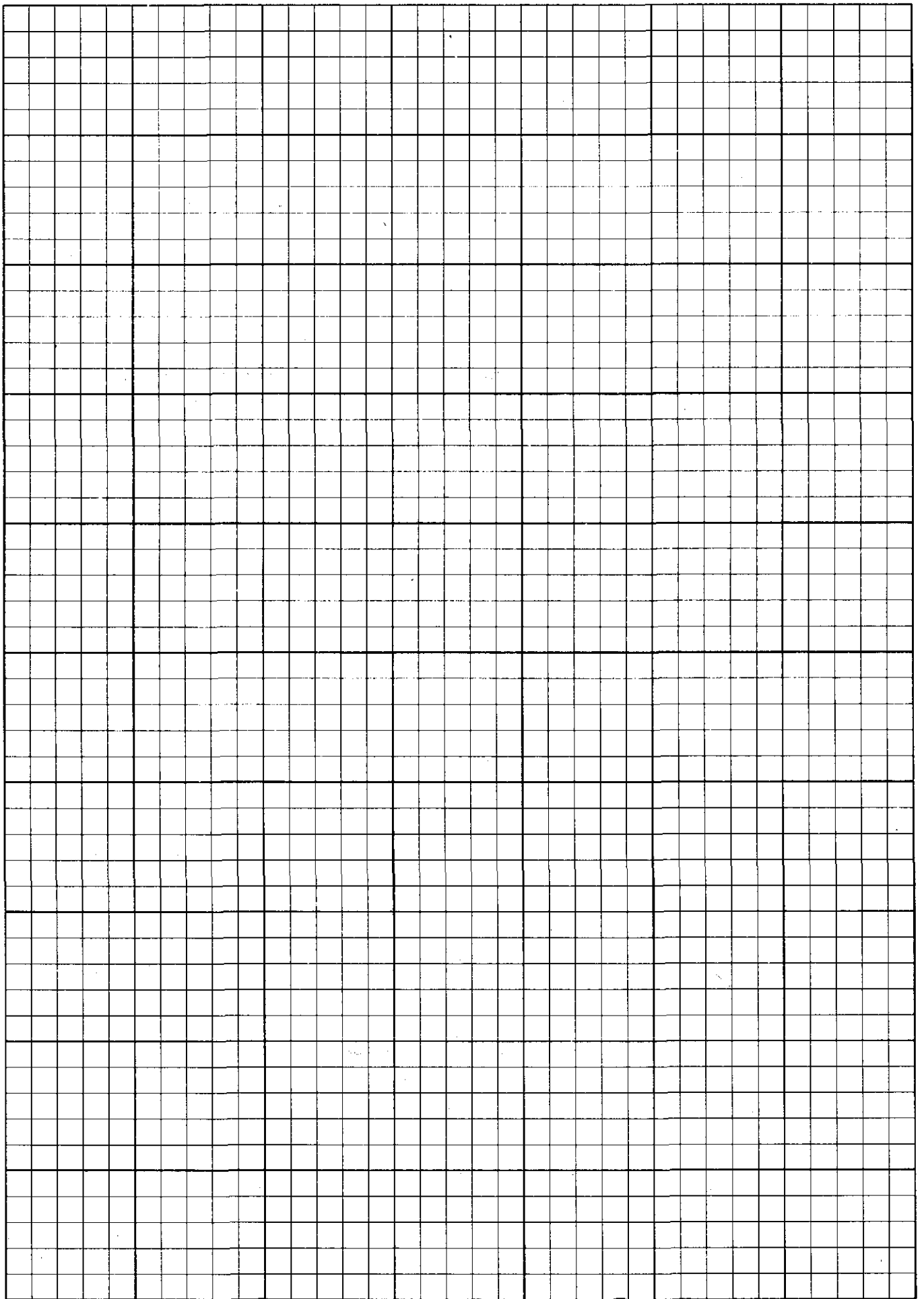
\$250,000

Mgmt of Landfill : look at control measures instead of cap  
address response 60 DAYS  
eliminate B.

Mgmt of Surface Water Release : } will be reworked to include  
Mgmt of Contaminated Soils } removal  
Submit toxicology

Info & docs include in RFI

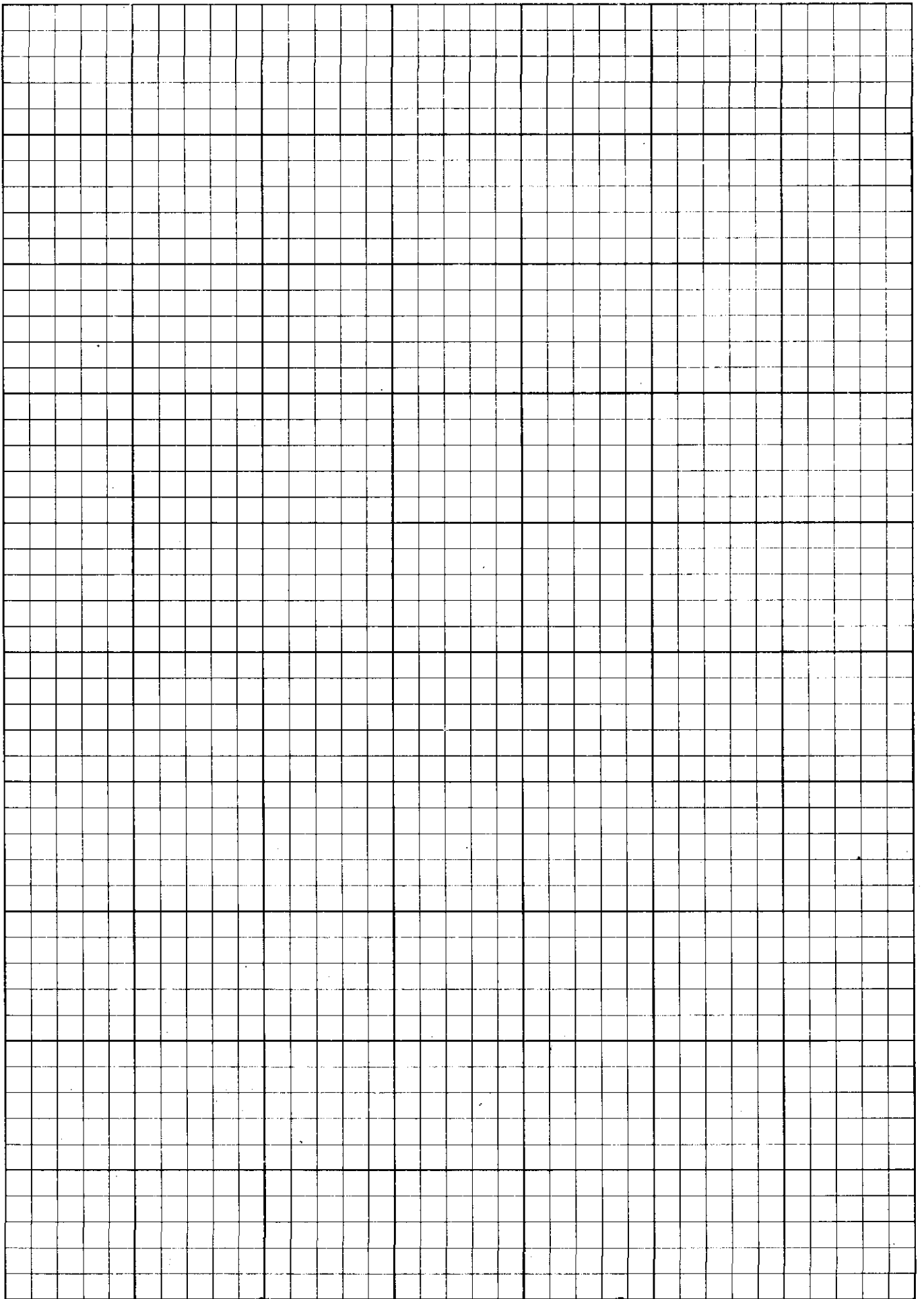
Health & Safety Plan — O.A



Community Relations Plan - QuestioningDesign Plans & Specifications O.K.Operation & Maintenance Plans O.K.Project Schedule O.K.Quality Ass. Plan

Const Quality Assurance

PFI





CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1898-1985

LAW OFFICES  
APPERSON, CRUMP, DUZANE & MAXWELL

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
MICHAEL E. HEWGLEY  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
MELODY W. OLIVER  
WILLIAM B. MASON, JR.  
STEVEN N. DOUGLASS  
RANDY S. GARDNER

SAMUEL RUBENSTEIN  
OF COUNSEL

SUITE 2110  
ONE COMMERCE SQUARE  
MEMPHIS, TENNESSEE 38103  
901/525-1711

TELECOPY 901/521-0789

January 26, 1990

EAST OFFICE

SUITE 100  
KIRBY CENTRE  
1755 KIRBY PARKWAY  
MEMPHIS, TENNESSEE 38119  
901/721-6300  
TELECOPY 901/757-1296

RECEIVED

JAN 29 REC'D  
199038

DEPT. OF NATURAL RESOURCE  
BUREAU OF POLLUTION CONTROL

Mr. Steve Boswell  
203 Silvercreek Drive  
Vicksburg, Mississippi 39180

VIA FEDERAL EXPRESS

Dear Steve:

Enclosed as discussed today is a copy of the "work plan" and a copy of my letter to Dick Karkkainen.

Dick, Randal and I need to meet with you and the state representatives prior to the meeting at EPA's office. I suggest a late morning conference and lunch at the Atlanta airport. We will discuss the details next week. In the meantime, I look forward to your comments and suggest that we set up a conference call with Steve Spengler and/or Toby Cook early next week to hear what the state has to say.

Sincerely yours,

Allen T. Malone

ATM:jw

Enclosure

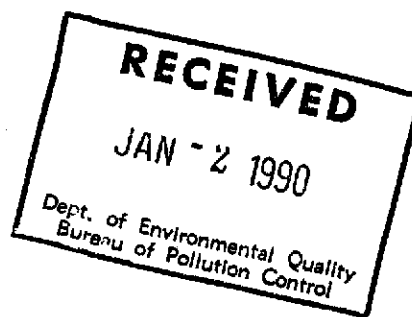
cc: Mr. Toby Cook (w/encl.) VIA FEDERAL EXPRESS  
Mr. J. Randal Tomblin



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365



DEC 21 1989

4WD-RCRA

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Steven T. Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39181

RE: Cedar Chemical Corporation  
Vicksburg Facility  
EPA ID NO: MSD 990 714 081

Dear Mr. Boswell:

Enclosed please find the United States Environmental Protection Agency's (EPA's) Determination of Release for the referenced facility. This determination is made pursuant to Section 3008(h) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6928(h).

If you have any questions regarding the determinations, please contact Zylpha K. Pryor, Assistant Regional Counsel, at (404) 347-2641.

Sincerely yours,

Patrick M. Tobin, Director  
Waste Management Division

Enclosure

cc:

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

HAND DELIVERED

October 26, 1989

Mr. Toby Cook  
Environmental Engineer  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

Subject: Contingency Plan

RECEIVED

OCT 26 1989

DEPT. OF NATURAL RESOURCES  
BUREAU OF POLLUTION CONTROL

Dear Mr. Cook:

Please find enclosed a copy of the plan you requested.

If there are questions concerning this matter, please contact me.

Sincerely,

STB: pc

Steven T. Boswell  
Director of Env. Affairs

DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 10/30/89

COMMENTS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1896-1965

LAW OFFICES  
APPERSON, CRUMP, DUZANE & MAXWELL

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
MICHAEL E. HEWGLEY  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
MELODY W. OLIVER  
WILLIAM B. MASON, JR.  
STEVEN N. DOUGLASS  
RANDY S. GARDNER

SAMUEL RUBENSTEIN  
OF COUNSEL

SUITE 2110  
ONE COMMERCE SQUARE  
MEMPHIS, TENNESSEE 38103  
901/525-1711

TELECOPY 901/521-0789

September 8, 1989

EAST OFFICE

SUITE 100  
KIRBY CENTRE  
1755 KIRBY PARKWAY  
MEMPHIS, TENNESSEE 38119  
901/756-6300  
TELECOPY 901/757-1296

Mr. Sam Mabry  
Director  
Division of Hazardous Waste  
Mississippi Department of  
Environmental Quality  
P. O. Box 10385  
Jackson, Mississippi 39209

Re: Cedar Chemical Corporation/Vicksburg Plant

Dear Sam:

Since you were copied on a letter dated August 25, 1989, from Patrick Tobin of EPA, Region IV, to Steve Boswell at the Vicksburg Plant, I am enclosing for your file all of the recent correspondence between Cedar and EPA relative to the subject information request.

Sincerely yours,

  
Allen T. Malone

ATM:jw

Enclosures

cc: Mr. Steve Boswell

DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 9/18/89

COMMENTS \_\_\_\_\_



CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1896-1985

LAW OFFICES  
APPERSON, CRUMP, DUZANE & MAXWELL

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
MICHAEL E. HEWGLEY  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
MELODY W. OLIVER  
WILLIAM B. MASON, JR.  
STEVEN N. DOUGLASS  
RANDY S. GARDNER

SAMUEL RUBENSTEIN  
OF COUNSEL

SUITE 2110  
ONE COMMERCE SQUARE  
MEMPHIS, TENNESSEE 38103  
901/525-1711

TELECOPY 901/521-0789

EAST OFFICE

SUITE 100  
KIRBY CENTRE  
1755 KIRBY PARKWAY  
MEMPHIS, TENNESSEE 38119  
901/756-6300  
TELECOPY 901/757-1296

September 8, 1989

Ms. Jeaneanne Gettle  
Environmental Engineer  
Waste Compliance Section  
United States Environmental  
Protection Agency  
Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Re: Cedar Chemical Corporation  
July 18 and August 25, 1989  
Requests for Information

Dear Ms. Gettle:

Pursuant to our telephone conversation on September 6, 1989, I enclose herewith the following documents:

1. Construction Agreement between Vertac Chemical and Buford Construction dated September 15, 1983.
2. Letter from Gee & Strickland, Inc. to Bob James, Jr., P.E. dated October 25, 1983.
3. Letter from Robert W. James, Jr., P.E. to Charles H. Estes, III, P.E. dated November 4, 1983.
4. A copy of the "As Built" Drawing certified by Gee & Strickland, referred to in each of the above letters.

As indicated in my letter to Allan Antley of September 1, 1989, we did not consider information contained in these documents to be responsive to the referenced information request. Nevertheless, if there are other documents relating to the closure of the inactive disposal area in 1983 which might be useful to you, we will be happy to search Cedar's files and records and provide them to you if they can be located. As we discussed, our review of the files has indicated no information regarding the materials which were disposed of in the old land-fill area prior to 1979 (the year when the previous owner discontinued use of the landfill) other than the documents which were enclosed with Steve Boswell's letter to Allan Antley of August 3, 1989.

Ms. Jeaneanne Gettle  
September 8, 1989  
Page Two

As stated in my recent letter to Mr. Antley, Cedar is anxious to cooperate with the agency in connection with any matters pertaining to the Vicksburg Plant. If there are additional questions concerning your recent information request, I hope you will contact me by telephone. (My copy of the Agency's letter of August 25, 1989 has still not arrived, although it was received at the Plant on September 1, 1989, and a photocopy of the letter which apparently was resent, was received at the Plant today.) I have always felt that an open line of communication between your Agency and Cedar would make your job as well as mine and Steve's more efficient and perhaps more pleasant.

Sincerely yours,

Allen T. Malone

ATM:jw

Enclosures

cc: Allan E. Antley, Chief  
Waste Compliance Section

cc: Mr. Sam Mabry  
Mississippi Department of  
Environmental Quality

cc: Mr. Steve Boswell  
Director of Environmental Affairs  
Cedar Chemical Corporation  
Vicksburg Plant

GRADING AND CAPPING OF  
THE INACTIVE DISPOSAL AREA  
AND  
SURFACE IMPOUNDMENT  
DIKE IMPROVEMENTS  
VERTAC CHEMICAL CORPORATION  
VICKSBURG, MS 39180

GILF & STRICKLAND, INC.  
Vicksburg, Mississippi

Engineers • Surveyors • Planners • Material Testing

**GRADING AND CAPPING OF  
THE INACTIVE DISPOSAL AREA  
AND  
SURFACE IMPOUNDMENT  
DIKE IMPROVEMENTS**

**VERTAC CHEMICAL CORPORATION  
VICKSBURG, MS 39180**

**OWNER:**

**VERTAC CHEMICAL CORPORATION  
5100 POPLAR STREET  
MEMPHIS, TN 38137**

**ENGINEERS:**

**MCI/CONSULTING ENGINEERS  
NASHVILLE, TN**

**GEE & STRICKLAND, INC.  
1104 OPENWOOD STREET  
VICKSBURG, MS 39180**

**AUGUST 26, 1983**



## INFORMATION FOR BIDDERS

BIDS will be received by Vertac Chemical Corporation  
(herein called the "OWNER"), at 1104 Openwood, Vicksburg, MS  
until 2:00 p.m. 9/7, 19 83, and then at said office publicly opened and read  
aloud.

Each BID must be submitted in a sealed envelope, addressed to Vertac Chemical Corporation at 1104 Openwood  
Each sealed envelope containing a BID must be plainly marked on the outside as BID  
for Inactive disposal area and dike improvement and the  
envelope should bear on the outside the name of the BIDDER, his address, his license  
number if applicable and the name of the project for which the BID is submitted. If  
forwarded by mail, the sealed envelope containing the BID must be enclosed in another  
envelope addressed to the OWNER at 1104 Openwood, Vicksburg, Mississippi

All BIDS must be made on the required BID form. All blank spaces for BID prices  
must be filled in, in ink or typewritten, and the BID form must be fully completed and  
executed when submitted. Only one copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all  
BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening  
of BIDS or authorized postponement thereof. Any BID received after the time and date  
specified shall not be considered. No BIDDER may withdraw a BID within 60 days after  
the actual date of the opening thereof. Should there be reasons why the contract cannot  
be awarded within the specified period, the time may be extended by mutual agree-  
ment between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in  
the BID Schedule by examination of the site and a review of the drawings and specifica-  
tions including ADDENDA. After BIDS have been submitted, the BIDDER shall not as-  
sert that there was a misunderstanding concerning the quantities of WORK or of the  
nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is  
pertinent to, and delineates and describes, the land owned and rights-of-way acquired  
or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construc-  
tion of the PROJECT. Information obtained from an officer, agent, or employee of the  
OWNER or any other person shall not affect the risks or obligations assumed by the  
CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID bond payable to the OWNER for five  
percent of the total amount of the BID. As soon as the BID prices have been compared,  
the OWNER will return the BONDS of all except the three lowest responsible BIDDERS.  
When the Agreement is executed the bonds of the two remaining unsuccessful BID-  
DERS will be returned. The BID BOND of the successful BIDDER will be retained until  
the payment BOND and performance BOND have been executed and approved, after  
which it will be returned. A certified check may be used in lieu of a BID BOND.

A performance BOND and a payment BOND, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the equal opportunity clause set forth in the SUPPLEMENTAL GENERAL CONDITIONS.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when requested to do so by the OWNER.

Inspection trips for prospective BIDDERS will leave from the office of the

Engineer \_\_\_\_\_ at by appointment \_\_\_\_\_

The ENGINEER is Gee & Strickland, Inc. His address is 1104 Openwood, Vicksburg, Mississippi

## NOTICE OF AWARD

To: Buford Construction Company  
Route 1, Box 430  
Vicksburg, MS 39180  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT Description: Grading and Capping of the Inactive Disposal Area and  
Surface Impoundment Dike Improvements, Vertac Chemical Corporation.

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated August 26, 19 83, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$ 204,750.

You are required by the Information for Bidders to execute the Agreement and furnish the required ~~CONTRACTOR'S Performance BOND, Payment BOND~~ and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this 14th day of September, 19 83.

Vertac Chemical Corporation  
By *J. L. Johnson*  
Title General Manager Vicksburg Plant

### ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged  
by Buford Construction Company

this the 14TH day of SEPTEMBER, 19 83

By President  
Title *B. P. Buford*

**BID**

Proposal of Buford Construction Company (hereinafter called "BIDDER"), organized and existing under the laws of the State of Mississippi doing business as Corporation \*.  
To the Verrac Chemical Company  
\_\_\_\_\_(hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of grading and capping the inactive disposal area and surface Impoundment Dike Improvements in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within sixty (60) consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$ 100.00 for each consecutive calendar day thereafter as provided in Section 15 of the General Conditions.

BIDDER acknowledges receipt of the following ADDENDUM:

None.

\*Insert "a corporation", "a partnership", or "an individual" as applicable.

| NO. | ITEM                                          | UNIT | UNIT PRICE | AMOUNT   | TOTAL PRICE  |
|-----|-----------------------------------------------|------|------------|----------|--------------|
| 1.  | Grading and capping of Inactive Disposal Area |      |            | Lump sum | \$70,725.00  |
| 2.  | Surface Impoundment Dike Improvements         |      |            | Lump sum | \$134,025.00 |

TOTAL OF BID ..... \$ 204,750.00  
LUMP SUM PRICE (if applicable) ..... \$

Respectfully submitted:

D. P. Butts  
Signature

Route 1, Box 430  
Vicksburg, MS 39180  
Address

President  
Title

September 6, 1983  
Date

License Number (if applicable)

(SEAL - if BID is by a corporation)

Attest \_\_\_\_\_

(F) General Conditions

(G) SUPPLEMENTAL GENERAL CONDITIONS

(H) ~~XXXXXXXXXXXX~~ - Deleted

(I) ~~XXXXXXXXXXXX~~ - Deleted

(J) NOTICE OF AWARD

(K) NOTICE TO PROCEED

(L) CHANGE ORDER

(M) DRAWINGS prepared by MCI  
numbered 1 through 4 and dated Jan 24  
19 83 and by MCI numbered 1 through 5 dated 8/8/83.

(N) SPECIFICATIONS prepared or issued by Gee & Strickland, Inc.  
and MCI.  
dated \_\_\_\_\_, 19\_\_\_\_\_

(O) ADDENDA:

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in ( Three ) each of which shall be deemed an original on the date first above written.  
(Number of Copies)

## AGREEMENT

THIS AGREEMENT, made this 14th day of September, 1983, by and between Vertac Chemical Corporation, hereinafter called "OWNER"  
(Name of Owner), (an individual)

and Buford Construction Company doing business as ~~(an individual)~~ or (a partnership) or (a corporation) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of Grading and capping of Inactive Disposal Area and Surface Impoundment Dike Improvements.

2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the same within 60 calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ 204,750.00 or as shown in the BID schedule.

5. The term "CONTRACT DOCUMENTS" means and includes the following:

- (A) Advertisement For BIDS
- (B) Information For BIDDERS
- (C) BID
- (D) ~~XXXXXXXX~~ - Deleted
- (E) Agreement

OWNER:

Vertac Chemical Corporation

BY

Name F. L. Ahlers

(Please Type)

Title

General Manager

Vicksburg Plant

(SEAL)

ATTEST:

*Robert W. James Jr.*

Name ROBERT W. JAMES JR. PE

(Please Type)

Title

CONTRACTOR:

Buford Construction Company

BY

*B. P. Buford*

Name B. P. Buford

(Please Type)

President

Address Route 1, Box 430

Vicksburg, MS 39180

(SEAL)

ATTEST:

*Philip C. Gee*

Name PHILIP C. GEE PE.

(Please Type)



## GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work

17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guaranty
30. Arbitration
31. Taxes

### 1. DEFINITIONS

1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1.2 ADDENDA—Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.

1.3 BID—The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.

1.4 BIDDER—Any person, firm or corporation submitting a BID for the WORK.

1.5 BONDS—Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

1.6 CHANGE ORDER—A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.

1.7 CONTRACT DOCUMENTS—The contract, including Advertisement For Bids, Information For Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.

1.8 CONTRACT PRICE—The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

1.9 CONTRACT TIME—The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

1.10 CONTRACTOR—The person, firm or corporation with whom the OWNER has executed the Agreement.

1.11 DRAWINGS—The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.

1.12 ENGINEER—The person, firm or corporation named as such in the CONTRACT DOCUMENTS.

1.13 FIELD ORDER—A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 NOTICE OF AWARD—The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.

1.15 NOTICE TO PROCEED—Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

1.16 OWNER—A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.

1.17 PROJECT—The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

1.18 RESIDENT PROJECT REPRESENTATIVE—The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.

1.19 SHOP DRAWINGS—All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

1.20 SPECIFICATIONS—A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 SUBCONTRACTOR—An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.

1.22 SUBSTANTIAL COMPLETION—That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS—

**CONTRACTOR** or the **SUBCONTRACTOR** subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## **7. INSPECTION AND TESTING**

**7.1** All materials and equipment used in the construction of the **PROJECT** shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the **CONTRACT DOCUMENTS**.

**7.2** The **OWNER** shall provide all inspection and testing services not required by the **CONTRACT DOCUMENTS**.

**7.3** The **CONTRACTOR** shall provide at his expense the testing and inspection services required by the **CONTRACT DOCUMENTS**.

**7.4** If the **CONTRACT DOCUMENTS**, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any **WORK** to specifically be inspected, tested, or approved by someone other than the **CONTRACTOR**, the **CONTRACTOR** will give the **ENGINEER** timely notice of readiness. The **CONTRACTOR** will then furnish the **ENGINEER** the required certificates of inspection, testing or approval.

**7.5** Inspections, tests or approvals by the engineer or others shall not relieve the **CONTRACTOR** from his obligations to perform the **WORK** in accordance with the requirements of the **CONTRACT DOCUMENTS**.

**7.6** The **ENGINEER** and his representatives will at all times have access to the **WORK**. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The **CONTRACTOR** will provide proper facilities for such access and observation of the **WORK** and also for any inspection, or testing thereof.

**7.7** If any **WORK** is covered contrary to the written instructions of the **ENGINEER** it must, if requested by the **ENGINEER**, be uncovered for his observation and replaced at the **CONTRACTOR'S** expense.

**7.8** If the **ENGINEER** considers it necessary or advisable that covered **WORK** be inspected or tested by others, the **CONTRACTOR**, at the **ENGINEER'S** request, will uncover, expose or otherwise make available for observation, inspection or testing as the **ENGINEER** may require, that portion of the **WORK** in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such **WORK** is defective, the **CONTRACTOR** will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such **WORK** is not found to be defective, the **CONTRACTOR** will be allowed an increase in the **CONTRACT PRICE** or an extension of the **CONTRACT TIME**, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate **CHANGE ORDER** shall be issued.

## **8. SUBSTITUTIONS**

**8.1** Whenever a material, article or piece of equip-

ment is identified on the **DRAWINGS** or **SPECIFICATIONS** by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The **CONTRACTOR** may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the **CONTRACT DOCUMENTS** by reference to brand name or catalogue number, and if, in the opinion of the **ENGINEER**, such material, article, or piece of equipment is of equal substance and function to that specified, the **ENGINEER** may approve its substitution and use by the **CONTRACTOR**. Any cost differential shall be deductible from the **CONTRACT PRICE** and the **CONTRACT DOCUMENTS** shall be appropriately modified by **CHANGE ORDER**. The **CONTRACTOR** warrants that if substitutes are approved, no major changes in the function or general design of the **PROJECT** will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the **CONTRACTOR** without a change in the **CONTRACT PRICE** or **CONTRACT TIME**.

## **9. PATENTS**

**9.1** The **CONTRACTOR** shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the **OWNER** harmless from loss on account thereof, except that the **OWNER** shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the **CONTRACTOR** has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the **ENGINEER**.

## **10. SURVEYS, PERMITS, REGULATIONS**

**10.1** The **OWNER** shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the **WORK** together with a suitable number of bench marks adjacent to the **WORK** as shown in the **CONTRACT DOCUMENTS**. From the information provided by the **OWNER**, unless otherwise specified in the **CONTRACT DOCUMENTS**, the **CONTRACTOR** shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

**10.2** The **CONTRACTOR** shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

**10.3** Permits and licenses of a temporary nature necessary for the prosecution of the **WORK** shall be secured and paid for by the **CONTRACTOR** unless otherwise stated in the **SUPPLEMENTAL GENERAL CONDITIONS**. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the **OWNER**, unless otherwise specified. The **CONTRACTOR** shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the **WORK** as drawn and specified. If the **CONTRACTOR**

Modifications to General Conditions required by a Federal agency for participation in the PROJECT and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

1.24 SUPPLIER—Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK—All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

1.26 WRITTEN NOTICE—Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

## 2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

## 3. SCHEDULES, REPORTS AND RECORDS

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable:

3.2.1 The dates at which special detail drawings will be required; and

3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.

## 4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## 5. SHOP DRAWINGS

5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

5.3 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## 6. MATERIALS, SERVICES AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the

observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13. CHANGES IN THE WORK.

#### 11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

#### 12. SUPERVISION BY CONTRACTOR

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

#### 13. CHANGES IN THE WORK

13.1 The OWNER may at any time, as the need arises,

order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

#### 14. CHANGES IN CONTRACT PRICE

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

#### 15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation

cuted and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

#### 19. PAYMENTS TO CONTRACTOR

19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER's title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate. The OWNER shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty (50) percent of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five (5%) percent on the current and remaining estimates. When the WORK is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced below five (5) percent to only that amount necessary to assure completion. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and

equipment which are suitably stored either at or near the site.

19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUB-CONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

## 16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

## 17. SUBSURFACE CONDITIONS

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS; or

17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

## 18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR

will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

18.2 If the CONTRACTOR is adjudged a bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK exe-



ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

## 28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.

28.2 The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

## 29. GUARANTY

29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be

necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guarantee period.

## 30. ARBITRATION

30.1 All claims, disputes and other matters in question arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance of final payment as provided by Section 20, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

30.2 Notice of the demand for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and with the American Arbitration Association, and a copy shall be filed with the ENGINEER. Demand for arbitration shall in no event be made on any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.

30.3 The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

## 31. TAXES

31.1 The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed.

## **20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE**

20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

## **21. INSURANCE**

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any

operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

## **22. CONTRACT SECURITY**

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by



the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

### 23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

### 24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

### 25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other con-

tracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefor as provided in Sections 14 and 15.

### 26. SUBCONTRACTING

26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s), in excess of fifty (50%) percent of the CONTRACT PRICE, without prior written approval of the OWNER.

26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

26.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

### 27. ENGINEER'S AUTHORITY

27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The

## Supplemental General Conditions

1. Ponds number 2 and 3 must be dewatered sufficiently that all fill material is placed "in the dry." This will not be necessary in pond 1.
2. Dikes constructed around outlet pipes and the pump station for dewatering must be removed when the work is completed.
3. Only one pond may be dewatered at a time.
4. Six borings were made on the inactive disposal area and the logs of these borings are available in Gee & Strickland's office. The contractor is responsible for the information contained in these logs.
5. There is some potential extra processing of the borrow material may be required due to excess moisture. Permission is granted by Vertac to excavate in the borrow area.
6. It is anticipated Notice to Proceed will be issued in time to begin work by October 3, 1983. The order of work shall be the dike work first, then the inactive disposal area. As long as sufficient progress is being made on the dike, additional equipment may be mobilized for the disposal area.
7. The following quantities have been provided by MCI for the dike improvements. The contractor assumes all responsibility for the use of these quantities.
  - a) On site cut and fill 3,200 yd<sup>3</sup>
  - b) Haul in fill 3,000 yd<sup>3</sup>
  - c) Gravel for chimney drain 785 yd<sup>3</sup>
  - d) Rip rap 2,700 yd<sup>3</sup>
  - e) Filter cloth 60,000 ft<sup>2</sup>
  - f) Seeding 2,900 yd<sup>2</sup>

## SITE WORK

## EARTHWORK

### GENERAL

### SCOPE OF WORK

Work consists of all stripping, grubbing, related items of demolition, excavation, fill, backfill, and grading for the entire project as shown on the drawings and/or specified herein.

### GENERAL

Operations of earthwork shall be suspended at any time when satisfactory results cannot be obtained on account of rain, inclement weather or other unsatisfactory conditions of the field. Contractor shall provide and maintain area of Limits of Work with proper drainage at all times.

### FIELD CONTROL

The Owner shall retain services of a testing laboratory to perform all tests required under this contract. In areas where density of fill or embankment is specified, field density tests will be performed as directed by the Engineer.

Unsatisfactory Material. If controlled fills are found to be unsatisfactory by the Testing Laboratory, material shall be removed and replaced to produce the class fill specified, and retested at the Contractor's expense.

### CLEARING AND GRUBBING

Clear and grub the site of all trees, vegetation, and topsoil. This material is to be removed from the site. No disposal site is provided by the Owner unless shown on the plans.

### FILLING

Fill materials shall be approved by the Engineer and shall conform to the following unless otherwise noted on the drawings.

Fill shall be free of organic matter, vegetation and debris with a liquid limit less than 30 and a plastic index less than 10.

### FILL CLASSIFICATION

All fills shall be compacted to 95% ASTM D698 (Standard Proctor) unless otherwise shown on the plans.

**TECHNICAL SPECIFICATIONS  
FOR THE  
GRADING AND CAPPING  
INACTIVE DISPOSAL AREA  
VERTAC CHEMICAL CORPORATION  
VICKSBURG, MS 39180**

**GEE & STRICKLAND, INC.  
1104 OPENWOOD STREET  
VICKSBURG, MS 39180**

## EXECUTION

HAUL ROADS. The contractor shall maintain the haul roads with sufficient moisture to prevent dust becoming a nuisance to plant operations or a safety hazard.

## ROUGH GRADING

Grading. Grade the entire area within  $.2' \pm$ , of the noted elevations.

## DRAINAGE

Both temporary and permanent drainage shall be maintained during performance of the Work. Surface of unfinished fills shall be bladed smooth to a crown or grade to permit water run-off. Contractor shall control grading so as to prevent water from running into excavated areas; provide all ditching and/or pumping required to keep excavated areas free of water.

Saturation. Fill that has become saturated with water because of improper drainage shall be removed to a depth determined by the Engineer and shall be disposed of or reconditioned to conform to these Specifications.

## SEEDING

After grading operations have been completed, all areas shown on the plans shall be seeded as herein specified.

## LAYOUT

The Engineer will provide grade stakes at the beginning of the project and blue tops for the proposed grade and final grade as shown on the plans. The contractor shall notify the Engineer at least two working days before grade stakes are required. The contractor shall exercise reasonable care in preserving grade stakes.

## QUANTITY ESTIMATES

This parcel has been cross-sectioned at 50' intervals with cut and fill volumes determined from the plans at 50' cross-sectioned intervals. These computations show 20,000 cubic yards of on-site cut and 16,500 cubic yards of on-site fill. An additional 14,000 cubic yards must be hauled from the borrow areas to provide the 18" cap shown on the plans. Both of these volumes are in-place material and volumes do not provide for any shrinkage factors. These volumes are provided for the convenience of bidders, however, the Contractor assumes all responsibility for the use of these volumes.

## SITE VISIT

As noted on the plans, some changed conditions exist. The contractor is responsible to visit the site and familiarize himself with the site and haul conditions. Failure to do so will not be a basis of a change order.

## PAYMENT

Payment will be made at the Lump Sum price shown on the Bid Schedule.

it unsuitable for use will not be accepted. Fertilizer shall not have been exposed to weather prior to delivery and shall be protected at the job site until use. Fertilizer used shall contain the following percentage by weight:

13% of nitrogen  
13% of phosphoric acid  
13% of potash  
or as otherwise specified herein.

#### MULCH

The mulching agent which is incorporated in the slurry is to be approved by the Engineer.

#### WATERING

If soil moisture is deficient when planting, apply sufficient water for seed germination. Continue watering until a stand of grass sufficient to retard erosion is established.

#### INSPECTION AND ACCEPTANCE

When a sufficient stand of grass has been established to retard erosion, the Engineer will inspect the site and notify the Contractor of acceptance. Watering may be stopped at that time.

#### MEASUREMENT AND PAYMENT

Measurement of the area will be done by the Engineer and payment will be at the unit price in the Bid Schedule.

**TECHNICAL SPECIFICATIONS  
SURFACE IMPOUNDMENT DIKE IMPROVEMENTS  
VERTAC CHEMICAL CORPORATION  
VICKSBURG, MISSISSIPPI**

**Prepared by:**

**MCI/Consulting Engineers, Inc.  
P.O. Box 23010  
10628 Dutchtown Road  
Knoxville, Tennessee 37933-1010**

**August 8, 1983**

## SEEDING

---

### GENERAL

This section includes furnishing all materials, labor and equipment necessary to seed and produce a grass cover on the limits of work shown on the plans and specified herein.

### SCOPE

The seeding shall be done by hydromulching process as performed by Mississippi Grass, Brandon, MS, or equal.

### GRASS

The seed shall be of the best grade, and of known vitality, purity, and germination and shall be delivered in bags as required by law, each bag being tagged showing the percent of germination and purity of the seed, also the percent of noxious weeds and inert litter. All seed shall be free of wild onion, Canada thistle, and Johnson grass. One (1) pound of seed shall not contain more than 300 noxious seeds. No seed more than one year old will be accepted. Seeding shall be done with grasses which will germinate in the season planted, as shown in the following table and at the prescribed rates:

March 1 to Aug. 15

-Bermuda Grass at 50 lbs.  
per Acre.

August 15 to Nov. 15

-Annual Rye Grass at 50  
lbs. per Acre.

Bermuda grass seed shall be hulled. If Annual Rye Grass is planted as necessitated by the schedule, Bermuda Grass must be overseeded and an acceptable stand established at a later date by the Contractor as a permanent cover within its permitted planting season as specified above.

In areas where the final slope is at or steeper than 2½ horizontal to 1 vertical, the areas shall be sodded with the appropriate grasses as above.

### FERTILIZERS

Commercial fertilizers shall be complete formula and shall conform to the applicable regulations and laws. It shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making



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4. GENERAL PROVISIONS

A. Lines and Grades: The fills shall be constructed to the lines and grades indicated on the drawings. Grading shall be finished with a tolerance of 0.1 foot of the grades indicated.

B. Conduct of the Work: The contractor shall maintain the site in a well-drained satisfactory condition at all times until final completion and acceptance of all work under the contract. Any approved fill material which is rendered unsuitable after being placed in the embankment and before final acceptance of the work shall be replaced by the contractor in a satisfactory manner at no additional cost to the Owner.

Throughout construction it is essential that the site be maintained in a well-drained condition. Water should not be allowed to pond or be impounded in any area, and drainage shall be controlled in a manner which will insure the quality of the work.

C. Density Tests: The grading operation will be continuously monitored by the engineer designated by the Owner or their representative hereinafter called the Engineer. During the construction of any fill, density and other tests will be conducted which may cause delays in the contractor's placing and compaction operations. The contractor shall coordinate his work with the operations of the Engineer.

5. MATERIALS

- A. General: Fill shall consist of earth or rock. Materials to be stockpiled or wasted are to be specifically designated as such. Materials containing brush, roots, sod, or other deleterious materials will not be considered suitable. The suitability of the materials and their deposition shall be subject to the approval of the Engineer. Considerable drying of materials excavated within the existing dike will probably be required to allow proper compaction.

6. FILL

- A. General: The suitability of all materials placed in the fill will be determined by the Engineer.
- B. Definitions: The term "Fill" as used in these specifications is defined as the earth to be imported or excavated on the site and deposited in layers and compacted by rolling and/or tamping. Earth fill is considered to be organic-free soil derived from on-site excavations, or approved borrow areas.

7. PREPARATION FOR FILL PLACEMENT

- A. General: All areas to have fill placed upon them will be examined by the Engineer after stripping, and any soft or otherwise deleterious materials will be removed prior to placement. No fill material shall be placed until the subgrade has been examined and approved by the Engineer.
- B. Proofrolling: After stripping and prior to fill placement those areas which will have fill placed upon them shall be proofrolled with heavy, pneumatic-tired construction equipment. Any soft, unstable or otherwise unacceptable zones detected thereby, as determined by the Engineer, shall be undercut to firm soil, stabilized by compaction or otherwise

compacted using heavy rollers or tracked equipment until judged stable by the Engineer.

- C. Compaction Equipment: Compaction equipment shall conform to standards of the industry and shall be used as prescribed. The Contractor will furnish and have on the job the various types of compaction and grading equipment which may be required to properly consolidate the various types of materials incorporated in the fill, or which are otherwise required to prepare the site.
- D. Spreading: After dumping, the material shall be spread by bulldozer or grader in approximate horizontal layers over the fill areas. Concentration of oversize material will not be permitted. If, in the opinion of the geotechnical engineer, any individual stone or stones interfere with proper and smooth compaction, they shall be removed from the lift. During the dumping and spreading processes, the contractor shall maintain at all times a force of men adequate to remove all roots and debris from all fill materials. The entire surface of any fill under construction shall be maintained in such condition that construction equipment can travel over it. Ruts in the surface of any layer shall be filled satisfactorily before compacting.

9. MOISTURE CONTROL

The materials in each layer of the fill shall contain the amount of moisture necessary to obtain the desired compaction as determined by the Engineer. Material that is too wet when placed in the fill shall be spread over the fill surface and permitted to dry, assisted by discing or harrowing, if applicable, until the moisture content is reduced to an amount within tolerable limits. When the material is too dry, the contractor will be required to sprinkle

each layer of fill. Discing, or other approved methods, will be required to work the moisture into the material until a uniform distribution of moisture is obtained. Water applied on a layer of fill shall be accurately controlled in amounts so that free water will not appear on the surface during or subsequent to rolling. Should too much water be added to any part of the fill so that the material is too wet to obtain the desired compaction, the rolling and all work on that section of the fill shall be delayed until the moisture content of the material is reduced to an amount with the specified limits. If, in the opinion of the Engineer, the top or contact surface of a partial fill section becomes too wet or too dry to permit suitable bond between these surfaces and the additional fill to be placed thereon, the contractor shall loosen the wet or dried material by scarifying or discing to such depths as may be directed, shall dampen or dry the loosened material to an acceptable moisture content, and shall then compact this layer in accordance with the applicable requirements to densities comparable to the underlying fill.

Drainage and Rockfill

SECTION IV

1. SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment, and performing all operations in connection with the construction and placing of the subsurface drains and rock toe in accordance with the Drawings and these specifications.

2. TOE DRAIN

Toe drains shall be installed at the base of the slope as shown by the drawing. The rock shall be reasonably well graded with a maximum rock dimension of 12 inches. The rock shall contain no greater than 5% material passing a #200 sieve and shall have at least 50% of the particles (by weight) greater than 6 inches. The rock shall be placed in lifts not to exceed one foot and shall be composed of durable limestone that does not slake in water. Filter fabric (Supac 5-P or equivalent) shall be placed beneath the rock as shown on the drawings.

3. CHIMNEY DRAIN

Chimney drains shall be installed on the appropriately prepared slope as shown on the drawings. The rock shall conform to ASTM D 448, Size Number 357 or an alternate rock approved by MCI/Consulting Engineers, Inc. The rock shall be placed in lifts not exceeding eight inches and shall be composed of durable limestone that does not slake in water, or a washed, clean river gravel approved by MCI/Consulting Engineers, Inc. Filter fabric (Supac 5-P or equivalent) shall be placed around the rock fill as shown on the drawings and shall be overlapped a minimum of two feet at all locations where joints are necessary.

repaired as deemed necessary by the Engineer. It is the intent of these specifications to provide a uniformly stable surface on which to place fill.

**8. PLACEMENT**

- A. General:** No fill shall be placed in any area until such areas have been inspected and approved. The gradation and distribution of materials throughout the compacted fill section shall be such that the fill will be free from lenses, pockets, streaks, layers of material differing substantially in texture or gradation from surrounding material of the same class. Successive loads of materials shall be dumped at locations on the fill as directed or approved by the Engineer. No fill shall be placed upon a frozen surface, nor shall snow, ice, or frozen earth be incorporated in the fill. Unless otherwise directed, all earth fill materials shall be kept crowned with temporary slopes of at least 2% until completed.
- B. Compaction:** Fill shall be constructed of approved materials and shall be placed in lifts to the lines and grades on the drawings and staked in the field.

Where the fill is predominately earth, it will be placed in uniform layers no greater than eight inches in thickness. Successive layers shall be compacted to at least 95% of its maximum density according to ASTM D 698 (standard Proctor). Compaction shall be accomplished by sheepsfoot rollers, power rollers or other equipment approved by the Engineer.

Rock fill shall be placed in lifts approximately equal in thickness to the maximum particle size contained therein, but in no case greater than twelve inches. This material shall be

Specifications for  
Grading

SECTION III

1. SCOPE OF WORK

The work covered in this section consists of furnishing all plant, labor and equipment and performing all operations in connection with the required excavation and placing all fills, including compaction, in accordance with the contract drawings and these specifications.

2. CLASSIFICATION

A. Excavation

All excavation shall be considered as unclassified.

Subsurface exploratory data are available for review to assist the contractor in assessing the difficulty in achieving all excavations and in evaluating the work in general. However, the contractor is hereby notified that subsurface data furnished by the Owner is for general information only and the contractor is solely responsible for assessing the conditions.

3. DRAINAGE STRUCTURES

Drainage structures including ditches and inlets shall conform to the alignment, grades and details shown by the Plans.



Specifications for  
Clearing and Grubbing

SECTION II

1. SCOPE OF WORK

This specification covers the clearing and grubbing associated with site preparation and related works and disposal of all brush, timber and debris and all incidental work related thereto.

2. LIMITS OF THE WORK

All trees, stumps, vegetation, topsoil and other deleterious materials must be removed from all areas of the site which require excavation, filling or grading. Topsoil shall be removed to the depth necessary to remove all roots and organic matter.

3. DISPOSAL OF MATERIALS

All timber, brush and other organic materials from clearing operations shall be disposed of on-site. The area for disposal will be adjacent to the project, but not in a drainageway.

Vegetation

SECTION V

1. Permanent vegetation will be placed on all exposed or bare areas in accordance with the following sections.
  - A. Soil Improvement: Evenly apply 150 pounds of agricultural limestone per 1000 square feet. Apply 10 pounds of 10-10-10 analysis fertilizer or equivalent per 1000 square feet.
  - B. Seeding: Evenly apply 2 pounds of Rye Grass per 1000 square feet and 1/4 pound Common Bermuda per 1000 square feet. The lime, fertilizer, and seed may be applied separately by hand or with mechanical equipment, or they may be applied simultaneously by using a hydraulic seeder. Other seed as necessary to establish a year-round grass stand shall be applied.
  - C. Protective Cover: To provide protective cover and conserve moisture during the establishment of vegetative cover, an erosion control fabric such as Hold-Gro or equivalent will be installed according to manufacturer's recommended procedures.



**VERTAC CHEMICAL CORPORATION**

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REPLY TO: P. O. BOX 3

VICKSBURG, MS 39180  
(601) 636-4231

November 4, 1983

Mr. Charles H. Estes, III., P.E.  
Mississippi Department of Natural Resources  
Bureau of Pollution Control  
Division of Solid Waste Management  
P.O. Box 10385  
Jackson, MS 39209

SUBJECT: Inactive Disposal Area - Vertac Chemical Corporation, Vicksburg, MS

Dear Mr. Estes:

Enclosed herewith is one certified copy of Gee & Strickland drawing dated October 25, 1983 showing As Built conditions for final capping on the Inactive Disposal Area. Also enclosed is Gee & Strickland letter dated October 25, 1983 by Philip C. Gee, P.E. certifying substantial compliance by the contractor with the plans and specifications of the contract dated September 14, 1983. This contract was based in part on drawings prepared by MCI/Consulting Engineers (Project 82-529 Sheets 1 thru 4 of 4).

The As Built drawing compares well to MCI Sheet 3 of 4 showing the final capping plan. In addition, these Gee & Strickland documents represent the condition found on the Ms/DNR Inspection on the afternoon of Monday, October 31, 1983 conducted by Mr. Estes and Mr. Spengler.

The contractor is aware of the seriousness of the vegetation cover requirements and his contract is written such that neither progress payment will be made nor performance retention released until such time as a mowable stand of grass is attained. Seeding operations for the Dike Improvements are scheduled within the next week and it is anticipated that such reseeded as is necessary for the Disposal Area will be accomplished at that time. In addition, it is expected that watering will be accomplished by a sprinkler system.

Very truly yours,

Robert W. James, Jr., P.E.  
Project Engineer

RWJ/ksh

Enclosures

cc F. Ahlers

F. Bleyer (w/encl)

P. Buford (Buford Const.) (w/encl)

P. Gee (G&S)

D. Karkkainen (w/encl)

D. Madsen (w/encl)

F. Wilson (MCI) (w/encl & dwg)

# GEE & STRICKLAND, INC.

CONSULTING ENGINEERS & SURVEYORS

1 Openwood Plaza  
1104 Openwood St.  
Vicksburg, Miss. 39180

Philip C. Gee, P.E.  
Joseph G. Strickland, R.L.S.

Phone: 601-636-7831

October 25, 1983

Mr. Bob James, Jr., P.E.  
Vertac Chemical Company  
P.O. Box 3  
Vicksburg, MS 39180

Re: Grading & Capping  
Inactive Disposal Area

Dear Mr. James,

This letter is to serve as certification that Buford Construction Company has completed the Grading and Capping of the inactive disposal area in substantial compliance with plans and specifications of the contract dated September 14, 1983. The only major exception is a mowable stand of grass has not been achieved. The grass has been planted and fertilized and is beginning to emerge. A good grass cover should be established within the next few weeks. A copy of the As Built topographic survey is attached.

The grading does not extend as far to the South or West as shown on the plans. When grading began, the cut material was extremely wet and as it dried out during processing much higher than normal shrinkage factors were encountered. Accordingly, the in-place yardage of soil was reduced.

The end product complies with the intent of a minimum 18 inch cap of clean material and a final uniform grade providing drainage. All cap material was compacted to 95% ASTM D-698. Testing was done in accordance with ASTM D-2922.

Very Truly Yours,



Philip C. Gee, P.E.

PCG/jh

CHARLES W. METCALF, 1840-1924  
WILLIAM P. METCALF, 1872-1940  
JOHN W. APPERSON, 1898-1988

LAW OFFICES  
APPERSON, CRUMP, DUZANE & MAXWELL

CHARLES METCALF CRUMP  
JERRE G. DUZANE  
JOHN B. MAXWELL, JR.  
ALLEN T. MALONE  
PHILIP G. KAMINSKY  
ROBERT L. DINKELSPIEL  
MICHAEL E. HEWGLEY  
JAMES F. RUSSELL  
JOHN L. RYDER  
THOMAS R. BUCKNER  
VELODY W. OLIVER  
WILLIAM B. MASON, JR.  
STEVEN N. DOUGLASS  
RANDY S. GARDNER

SAMUEL RUBENSTEIN  
OF COUNSEL

SUITE 2110  
ONE COMMERCE SQUARE  
MEMPHIS, TENNESSEE 38103  
901/525-1711

TELECOPY 901/521-0789

September 1, 1989

EAST OFFICE

SUITE 100  
KIRBY CENTRE  
1755 KIRBY PARKWAY  
MEMPHIS, TENNESSEE 38119  
901/756-6300  
TELECOPY 901/757-1296

Allan E. Antley, Chief  
Waste Compliance Section  
United States Environmental  
Protection Agency  
Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

VIA FEDERAL EXPRESS

Dear Mr. Antley:

In accordance with our telephone conversation today, this letter is in response to a letter from Patrick M. Tobin, Director, Waste Management Division, dated August 25, 1989 to Steven T. Boswell, Director, Environmental Affairs of Cedar Chemical Corporation's Vicksburg, Mississippi Plant, which was received at the Plant this date. Since Steve is out of town on vacation and will not return to the Plant until after next week, I am responding to the letter.

As we discussed today, the enclosures to Mr. Boswell's letter of August 3, 1989 are the only documents in Cedar's files which are responsive to the questions which were raised in Mr. Tobin's earlier letter dated July 18, 1989. Steve's reference to correspondence pertaining to closure of the old landfill following a field investigation by your office in 1981 was only intended to direct your attention to that file in case there might be something in the file which would be responsive to the questions raised. We of course do not have access to that file.

To reiterate, after an extensive search of its records both at the Vicksburg Plant and at the Company's corporate office in Memphis, and after review of files at the Mississippi Bureau of Pollution Control, Cedar is not aware of any information relating to material disposed of in the old landfill area (or relating to the other matters on which information was requested) except for the information contained in the documents that were enclosed with Steve's letter to you dated August 3, 1989. The sampling report which was generated by your office and submitted to the previous plant owner by letter of March 2, 1982, was not

Allan E. Antley, Chief  
September 1, 1989  
Page Two

deemed responsive and in any event, it was assumed that you had access to that report. The same is true of the letter from the Department of Natural Resources dated February 14, 1983 approving the closure plan for the landfill which was implemented by the previous plant owner that year.

I want to assure you and your associates that Cedar is committed to provide the Agency with any additional information at Cedar's disposal concerning questions regarding past operations and practices on the Vicksburg Plant site. At your suggestion, I attempted to reach Jeaneanne Gettle to determine the additional information which the Agency would like us to provide. By copy of this letter to Ms. Gettle, I ask that she contact me by telephone to clarify what additional information is being requested. As we discussed, it is likely that someone has misinterpreted Steve's letter and concluded that we have additional documents responsive to Mr. Tobin's earlier letter which were not provided. If that is the case, it is my fault since I helped Steve draft the response after we had reviewed numerous old files and records. If additional documents are required, I will get them to you as soon as possible, with the understanding that to the extent I need Steve to assist in a review of files, I may need some additional time since he will not return to work until September 13, 1989.

Thank you for your consideration. I will look forward to hearing from Ms. Gettle.

Sincerely yours,

Allen T. Malone

ATM:jw

cc: Ms. Jeaneanne Gettle  
Environmental Engineer

cc: Mr. Steven T. Boswell



Rec'd 9/1/89  
HAM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

AUG 25 1989

4WD-RCRA

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Steven T. Boswell, Director  
Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39180

RE: July 18, 1989 Request for Information Pursuant  
to Section 104 of CERCLA and Section 3007 of RCRA

Dear Mr. Boswell:

The United States Environmental Protection Agency requested, in the referenced document, certain information on the source, extent and nature, of the release or threatened release of hazardous substances, pollutants or contaminants on or about the Cedar Chemical Corporation (CCC) in Vicksburg, Mississippi. The information was requested pursuant to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. Section 9604, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499, and Section 3007 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6927.

In your response, dated August 3, 1989, you admitted having in your files certain information which was responsive to this request, but failed to provide this information to the Agency. You are hereby directed to provide all information responsive to our July 18, 1989 request to the following address within five (5) calendar days of receipt of this letter.

Allan E. Antley, Chief  
Waste Compliance Section  
U.S. EPA - Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

If you fail again to provide all information within your possession which is responsive to the referenced request, EPA will seek the imposition of penalties of up to twenty-five thousand dollars (\$25,000) for each day of continued non-compliance.

The information requested must be provided notwithstanding its possible characterization as confidential information or trade secret. You may, if you desire, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. Section 2.203 (b),

by attaching to such information at the time it is submitted, a notice employing language such as "trade secret," or "proprietary," or "company confidential." Information covered by such a claim will be disclosed by EPA only to the extent, and only by the means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA it may be made available to the public by EPA without further notice to you. You should read the above cited regulation carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim.

Should you have any questions, please contact Jeaneanne Gettle, Environmental Engineer at (404) 347-7603 or Zylpha Pryor, Assistant Regional Counsel, at (404) 347-2641.

Sincerely,



Patrick M. Tobin  
Director  
Waste Management Division

cc: Sam Mabry  
Mississippi Department of Natural Resources

Allen T. Malone  
Apperson, Crump, Duzane and Maxwell



GERALD, BRAND, WATTERS, COX & HEMLEBEN  
ATTORNEYS AT LAW  
NINTH FLOOR  
ONE JACKSON PLACE  
POST OFFICE BOX 158

JACKSON, MISSISSIPPI 39205-0158

601-948-3030  
Fax 601-968-5881

NEWTON OFFICE  
P. O. BOX 380  
NEWTON, MISS. 39345-0380

601-683-2082

MARTHA W. GERALD  
JACK W. BRAND  
WALKER L. WATTERS  
JUSTIN L. COX  
SCOTT P. HEMLEBEN  
A. JERRY SHELDON  
JOHN G. GOURLAY, JR.  
W. LARRY HARRIS  
SI M. BONDURANT  
KENNETH HARMON

ROBERT M. LOGAN, JR.  
ALAN B. CAMERON  
THOMAS R. HUDSON  
MICHAEL PUMPHREY  
WILLIAM T. MAY  
NANCY N. MORSE  
MARCIAL D. FORESTER, JR.  
WALTER J. BRAND  
J. ALLEN OVERBY, II  
KAREN D. LUSTER

\*Also Member of Alabama Bar

August 31, 1989

Mr. Steve Spengler  
Mississippi Department of Natural Resources  
Bureau of Pollution Control  
P. O. Box 10385  
Jackson, Mississippi 39209

RE: Compliance Status  
Cedar Chemical Corporation,  
Warren County, Mississippi

Dear Mr. Spengler:

This letter will confirm our telephone conversation yesterday concerning the above-referenced facility. You have advised that your records indicate that this facility is not currently required, under state or federal law, to hold a hazardous waste permit.

For purposes of our records, I would appreciate your signing the enclosed copy of this letter where indicated confirming the above information and returning same to me in the enclosed self-addressed stamped envelope.

GERALD, BRAND, WATTERS, COX & HEMLEBEN

Mr. Steve Spengler  
Page 2  
August 31, 1989

Thank you very much for your cooperation and assistance in this regard.

Sincerely,

GERALD, BRAND, WATTERS, COX & HEMLEBEN

BY:   
MARCIAL D. FORESTER, JR.

MDF,jr:mkb  
Enclosure  
cc: Mr. Thomas R. Hudson  
Miss Martha W. Gerald

STEVE SPENGLER, RCRA TSD BRANCH,  
HAZARDOUS WASTE DIVISION

DATE: \_\_\_\_\_



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.

DIVISION OF SOLID WASTE  
ATLANTA, GEORGIA 30365

AUG 25 1989

REVIEWED BY TC

DATE 9/5/89

COMMENTS \_\_\_\_\_

4WD-RCRA

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Mr. Steven T. Boswell, Director  
Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39180

RECEIVED  
SEP - 1 1989  
Dept. of Natural Resources  
Bureau of Pollution Control

RE: July 18, 1989 Request for Information Pursuant  
to Section 104 of CERCLA and Section 3007 of RCRA

Dear Mr. Boswell:

The United States Environmental Protection Agency requested, in the referenced document, certain information on the source, extent and nature, of the release or threatened release of hazardous substances, pollutants or contaminants on or about the Cedar Chemical Corporation (CCC) in Vicksburg, Mississippi. The information was requested pursuant to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. Section 9604, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499, and Section 3007 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6927.

In your response, dated August 3, 1989, you admitted having in your files certain information which was responsive to this request, but failed to provide this information to the Agency. You are hereby directed to provide all information responsive to our July 18, 1989 request to the following address within five (5) calendar days of receipt of this letter.

Allan E. Antley, Chief  
Waste Compliance Section  
U.S. EPA - Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

If you fail again to provide all information within your possession which is responsive to the referenced request, EPA will seek the imposition of penalties of up to twenty-five thousand dollars (\$25,000) for each day of continued non-compliance.

The information requested must be provided notwithstanding its possible characterization as confidential information or trade secret. You may, if you desire, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. Section 2.203 (b),

by attaching to such information at the time it is submitted, a notice employing language such as "trade secret," or "proprietary," or "company confidential." Information covered by such a claim will be disclosed by EPA only to the extent, and only by the means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA it may be made available to the public by EPA without further notice to you. You should read the above cited regulation carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim.

Should you have any questions, please contact Jeaneanne Gettle, Environmental Engineer at (404) 347-7603 or Zylpha Pryor, Assistant Regional Counsel, at (404) 347-2641.

Sincerely,



Patrick M. Tobin  
Director  
Waste Management Division

cc: Sam Mabry  
Mississippi Department of Natural Resources

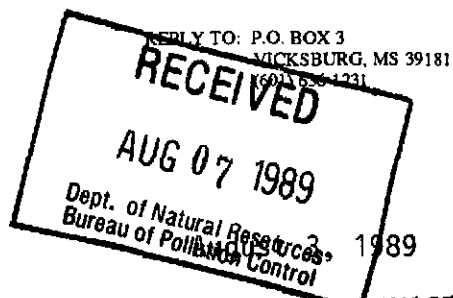
Allen T. Malone  
Apperson, Crump, Duzane and Maxwell

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 677 981 840

Mr. Allan E. Antley, Chief  
Waste Compliance Section  
U.S. EPA, Region IV  
RCRA Branch  
345 Courtland Street, NE  
Atlanta, Georgia 30365



DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 8/8/89

Re: Request for Information Pursuant to Section 104  
of CERCLA and Section 3007 of RCRA for Cedar  
Chemical Corporation in Vicksburg, Mississippi

Dear Mr. Antley:

Pursuant to the above-referenced request, we have reviewed all available records and files including those maintained by previous owners of the Vicksburg Chemical Plant. I have also discussed the request with present and former employees at the Vicksburg Plant who were involved in environmental and safety compliance. Based on all of this, I have found the following:

## Response to Questions No. 1 and 2:

Please see attached report dated February 18, 1983 from R. F. Maraman of Vertac (Cedar's predecessor) to Mr. Charles Estes of the Mississippi Bureau of Pollution Control.

This is the only incident that has ever caused implementation of the SPCC or Contingency Plan to the best of my knowledge.

## Response to Question No. 3:

Please see attached letter dated March 17, 1980, from Mr. Jim Hardage of the Mississippi State Board of Health to Mr. Rodger Marentis of Vertac, Inc. (a former owner of the site). The letter is accompanied by a sketch displaying the approximate location of previously disposed materials. I am told that the previous owner of the Plant arranged to dispose of certain of these wastes in a permitted facility off the site and I have found correspondence dating back to 1979 indicating that such a plan had been recommended, but I have found nothing to document exactly what was removed and where it was taken.

In addition to the sketch referred to above, please see the enclosed aerial photograph.

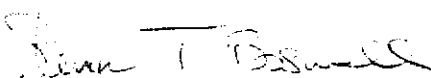
Mr. Allan E. Antley, Chief  
Page Two

The "old landfill" was inactive after 1979 and was closed and capped in late 1983 pursuant to an order of the Mississippi Department of Natural Resources dated November 10, 1982. The Order directed Vertac, the previous owner of the Vicksburg Plant, to carry out various studies and develop plans in connection with closure of the old landfill. I believe the order was precipitated in part by a field investigation by EPA on October 29, 1981. A copy of the sampling report generated as a result of that investigation was sent by EPA Region IV to the previous plant owner by letter dated March 2, 1982. I assume you have a copy of that report.

Our files do include voluminous correspondence between the previous plant owner and officials at the Mississippi Department of Natural Resources concerning development and implementation of the closure plan. The plan was approved by a letter from the Department on February 14, 1983 and was fully implemented thereafter. Grading and capping were carried out under a contract between the former owner of the plant and its contractor, Gee Strickland, Inc., based on plans and specifications prepared by MCI/Consulting Engineers of Knoxville, Tennessee. I am sure that the Mississippi Bureau of Pollution Control has complete files documenting the closure, including copies of all reports and correspondence that are included in the previous plant owner's files which are in Cedar's possession.

If we can provide any additional information that would be responsive to your requests, please identify in writing the additional information needed, with a copy to Cedar's attorney identified below.

Sincerely,



Steven T. Boswell  
Director of Environmental Affairs

STB:ld  
Enc.

cc: Mr. Allen T. Malone  
Apperson, Crump, Duzane & Maxwell  
Suite 2110, One Commerce Square  
Memphis, Tennessee 38103

cc: Mr. Steven Spengler  
Mississippi Department of Natural Resources  
Bureau of Pollution Control



**VERTAC CHEMICAL CORPORATION**

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REPLY TO: P. O. BOX 3  
VICKSBURG, MS 39180  
(601) 636-1231

February 18, 1983

Bureau of Pollution Control  
Hazardous Waste Division  
P.O. Box 10385  
Jackson, MS 39209

Attention: Mr. Charles Estes

Subject: Report on Holding Pond Incident

In compliance with existing regulations the following report is submitted.

OWNER OF THE FACILITY:

Vertac Chemical Corporation  
24th Floor, 5100 Poplar  
Memphis, TN 38137  
901-767-6851

NAME, ADDRESS AND TELEPHONE NUMBER OF THE FACILITY:

Vertac Chemical Corporation  
Vicksburg, MS Plant  
P.O. Box 3  
Rifle Range Road  
Vicksburg, MS 39180  
601-636-1231

DATE, TIME AND TYPE OF INCIDENT:

February 5, 1983  
Between midnight and 0800.  
Fracture in the dike on the East side of the holding pond causing approximately 60% of same to empty into Stouts Bayou.

NAME AND QUANTITY OF MATERIALS INVOLVED:

Approximately 700,000 gallons of waste water containing an estimated 4 ppm Dinitro Butyl Phenol as the major toxic constituent.

EXTENT OF INJURIES:

None to personnel.

No apparent injury to fish, wildlife, or the environment as estimated from subsequent chemical analysis and inspection.

POTENTIAL HAZARDS:

A potential hazard existed to fish and wildlife, but was estimated to be minimal due to the immense volume of rain water run-off in the bayou.

It rained heavily before the fracture and continued to rain through 2-5-83 and until approximately noon on 2-6-83.

ESTIMATION - QUANTITY AND DISPOSITION OF RECOVERED MATERIAL:

Recovered material, estimated at two (2) yards of contaminated mud from the pond, was removed from the fracture repair area and placed back into the pond impoundment area.

In addition to the above, the following is a running account of events from February 5, 1983 through February 14, 1983:

1. 2-5-83 - Approximately 0830:

Plant officials met at the fracture to assess the situation and determine possible hazards to human health and the environment.

No hazards were apparent in the immediate vicinity nor did it appear that any evacuation would be necessary.

Attention was turned to stopping the rain water run-off flowing to the creek. The pond consists of a settling section and a holding section separated by a finger dike except for a 6 foot section to allow effluent passage. Plans were made to first close the settling section, thus stopping the flow to the creek, then repair the fracture in the main dike.

A contractor, Miller Construction, was called in to start the closing operation.

The fracture was caused by the heavy rains in the area.

Approximately 0900:

The emergency response center was contacted. The situation was reported to Rick Sherrard and he contacted Steve Spengler.

Approximately 1000:

The bayou was inspected approximately two (2) miles South of the plant near MP&L. The bayou was muddy and approximately 10 foot deep.

No fish kills or environmental damage was observed there or in the nearby area.

Meanwhile, Miller Construction had arrived at the plant and closed the finger dike, thus stopping any discharge to the fracture and into the creek.

The DNB Plant was shutdown, the Toxaphene Plant was not in operation, and the hill tank flow was stopped. At this time the plant effluent



consisted of rain water run-off.

Approximately 1300:

A return trip was made to the bayou near MP&L. The water had risen to near bank level but again no dead fish or apparent environmental damage was observed.

A creek sample was taken. The analysis was 0.4 ppm DNBP and 30 ppb Toxaphene.

Approximately 1600:

Heavy rain had set in.

Steve Spengler visited to inspect the fracture, and obtained samples of the pond bottom. Steve discussed several courses of action and outlined precautions to be taken.

Vertac also sampled the pond bottom. The analysis was 31.6 mg/Kilo DNBP and 132 mg/Kilo.

An emergency watch was set up to prevent leaks from the finger dike dam during the night.

2. 2-6-83:

Since the dike surrounding the pond was saturated from recent rains, it would not support heavy equipment. Therefore, Miller Construction started constructing a road across the "dry" mid section of the pond to reach the fracture. They worked 24 hours per day to reach the fracture.

Steve Spengler visited to review progress and meet with Vertac officials and Dick Karkkainen, the Environmental Manager.

At 1130 the bayou near MP&L was sampled. The analysis was less than 0.1 ppm DNBP and 5 ppb Toxaphene.

The bayou was bank full with water. No dead fish or environmental damage was observed.

3. 2-7-83:

Miller Construction reached and filled the fracture. Reinforcing dirt was placed for almost 15 feet North and South of the closed fracture.

Plans were formulated to extend the existing dike by extending the width to approximately 20 feet, the length of the pond on the East side.

A consultant, Gee-Strickland, arrived to observe repairs and make recommendations.

A 36 inch concrete pipe was placed in the new road allowing the dammed up water to flow to the effluent pumps.

Steve Spengler and Charles Estes collected additional samples and advised moving the contaminated mud that had oozed out from under the dirt fill. The mud was removed by Miller Construction and placed in the "dry" pond area.

During the night water started to breach the access road, but the emergency crew repaired the leak and prevented major damage.

Approximately 1130:

The bayou at MP&L was inspected and sampled. It was about 15 feet deep. No dead fish or environmental damage was observed.

The analysis was nil DNBP and less than 1 ppb Toxaphene.

4. 2-8-83:

A storm front was expected to arrive. It was anticipated that rain water would run from the South hill area into the "dry" portion. A diesel pump was brought in to pump the water into the containment section.

A nearby source of good dirt was located to be used to extend the East dike.

The rain started in the afternoon.

5. 2-9-83:

The rain became a 2 1/2 inch downpour. Run-off water broke through the access road, but the diesel pump kept the situation under control.

The rest of the evening was a holding action.

Stouts Bayou rose to within inches of the top of the fracture repair and sandbags were placed to prevent the bayou from running into the pond.

The repair held with only minor washing on the bayou side.

6. 2-10-83:

Access road and fracture repair brought up to proper elevation.

7. 2-11-83:

Progress continued in a North-South direction on the East dike extension and it was completed on 2-14-83.

Steve Spengler and Charles Estes visited to inspect the progress.

Page 5

Approximately 1/2 the pond is operational with the remainder to be placed in service as soon as possible.

To this point Vertac has spent approximately \$63,000 to repair the fracture.

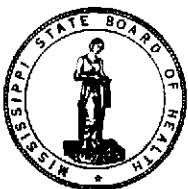
The strategy to protect Vertac's repair investment is currently being discussed at the corporate level.

*R. F. Maraman*

R.F. MARAMAN  
Chief Chemist

RFM/tsd

cc: Steve Spengler  
R.F. Maraman  
Effluent File  
File



MISSISSIPPI  
STATE BOARD OF HEALTH

2423 NORTH STATE STREET, P. O. BOX 1700  
JACKSON, MISSISSIPPI 39205

ALTON B. COBB, M.D., M.P.H.  
STATE HEALTH OFFICER

March 17, 1980

Mr. Rodger Marentis  
Vertac, Inc.  
P. O. Box 3  
Vicksburg, MS 39180

Dear Mr. Marentis:

As you know, David Lee and I met with you and other company officials on December 6, 1979 in regard to chemical waste disposal. We recently forwarded an assessment to EPA, based primarily on information you submitted to us during that meeting.

Since you indicated that some of the information discussed with us may be confidential, we request that you review the enclosed copy of the assessment and notify this agency in writing within fifteen (15) calendar days concerning any proprietary information in the report that should remain confidential and the reasons why. Please send your reply to the attention of the Director, Mr. Jack McMillan.

You may want to make a similar request for confidentiality to EPA Region IV. The mailing address for that is as follows:

Mr. Joel Veater  
Chemical Site Unit  
Hazardous Materials Division  
EPA Region IV  
345 Courtland Street  
Atlanta, GA 30308

If you have any questions, please contact this agency.

Sincerely,

Jim Hardage, Chemist  
Division of Solid Waste Management

JH/cs

cc: Mr. Joel Veater

# POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION AND PRELIMINARY ASSESSMENT

IV

FILE NUMBER (to be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information is based on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

## I. SITE IDENTIFICATION

|                                                                                                                                                                                                                                                           |  |                                                      |             |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|-------------|-------------------------------------|
| A. SITE NAME<br>Vicksburg Chemical Company, Drum Burial Site                                                                                                                                                                                              |  | B. STREET (for other identifier)<br>Rifle Range Road |             |                                     |
| C. CITY<br>Vicksburg                                                                                                                                                                                                                                      |  | D. STATE<br>MS                                       | E. ZIP CODE | F. COUNTY NAME<br>Warren            |
| G. OWNER/OPERATOR (if known)<br>1. NAME<br>(Now owned by) Vertac Chemical Company                                                                                                                                                                         |  |                                                      |             |                                     |
| H. TYPE OF OWNERSHIP<br><input type="checkbox"/> 1. FEDERAL <input type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input checked="" type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN |  |                                                      |             | 2. TELEPHONE NUMBER<br>601-636-1231 |

## I. SITE DESCRIPTION

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.)

Eckhardt's Report

K. DATE IDENTIFIED (mo., day, & yr.)

11/2/79

## L. PRINCIPAL STATE CONTACT

1. NAME Mississippi State Board of Health  
Division of Solid Waste Management

2. TELEPHONE NUMBER  
601-982-6317

## II. PRELIMINARY ASSESSMENT (complete this section last)

### A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH   ☐ 2. MEDIUM   ☐ 3. LOW   ☐ 4. NONE   ☒ 5. UNKNOWN

### B. RECOMMENDATION

☐ 1. NO ACTION NEEDED (no hazard)

☐ 2. IMMEDIATE SITE INSPECTION NEEDED  
a. TENTATIVELY SCHEDULED FOR:

☒ 3. SITE INSPECTION NEEDED  
a. TENTATIVELY SCHEDULED FOR:

b. WILL BE PERFORMED BY:

b. WILL BE PERFORMED BY:

STATE

☐ 4. SITE INSPECTION NEEDED (low priority)

## C. PREPARED BY INFORMATION

1. NAME

James Hardage, David Lee

2. TELEPHONE NUMBER  
601-982-6317

3. DATE (mo., day, & yr.)  
12/10/79

## III. SITE INFORMATION

### A. SITE STATUS

☐ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)

☒ 2. INACTIVE (Those sites which no longer receive wastes.)

☐ 3. OTHER (specify):  
(Those sites that include such incidents like "midnight dumping" no regular or continuing use of the site for waste disposal has occurred.)

### B. IS GENERATOR ON SITE?

☐ 1. NO

☒ 2. YES (specify generator's four-digit SIC Code): 2819, 2873

### C. AREA OF SITE (in acres)

About 5 acres

### D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES

1. LATITUDE (deg.-min.-sec.)

2. LONGITUDE (deg.-min.-sec.)

### E. ARE THERE BUILDINGS ON THE SITE?

☒ 1. NO   ☐ 2. YES (specify):

## CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

| A. TRANSPORTER                                          |                                                            | B. STOPER                                                     |                                                              | C. TREATER |  | D. DISPOSER |  |
|---------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|------------|--|-------------|--|
| <input checked="" type="checkbox"/> 1. RAIL             | <input checked="" type="checkbox"/> 1. PILE                | <input checked="" type="checkbox"/> 1. FILTRATION             | <input checked="" type="checkbox"/> 1. LANDFILL              |            |  |             |  |
| <input checked="" type="checkbox"/> 2. SHIP             | <input checked="" type="checkbox"/> 2. SURFACE IMPOUNDMENT | <input checked="" type="checkbox"/> 2. INCINERATION           | <input checked="" type="checkbox"/> 2. LANDFARM              |            |  |             |  |
| <input checked="" type="checkbox"/> 3. BARGE            | <input checked="" type="checkbox"/> 3. DRUMS               | <input checked="" type="checkbox"/> 3. VOLUME REDUCTION       | <input checked="" type="checkbox"/> 3. OPEN DUMP             |            |  |             |  |
| <input checked="" type="checkbox"/> 4. TRUCK            | <input checked="" type="checkbox"/> 4. TANK, ABOVE GROUND  | <input checked="" type="checkbox"/> 4. RECYCLING/RECOVERY     | <input checked="" type="checkbox"/> 4. SURFACE IMPOUNDMENT   |            |  |             |  |
| <input checked="" type="checkbox"/> 5. PIPELINE         | <input checked="" type="checkbox"/> 5. TANK, BELOW GROUND  | <input checked="" type="checkbox"/> 5. CHEM./PHYS. TREATMENT  | <input checked="" type="checkbox"/> 5. MIDNIGHT DUMPING      |            |  |             |  |
| <input checked="" type="checkbox"/> 6. OTHER (specify): | <input checked="" type="checkbox"/> 6. OTHER (specify):    | <input checked="" type="checkbox"/> 6. BIOLOGICAL TREATMENT   | <input checked="" type="checkbox"/> 6. INCINERATION          |            |  |             |  |
|                                                         |                                                            | <input checked="" type="checkbox"/> 7. WASTE OIL REPROCESSING | <input checked="" type="checkbox"/> 7. UNDERGROUND INJECTION |            |  |             |  |
|                                                         |                                                            | <input checked="" type="checkbox"/> 8. SOLVENT RECOVERY       | <input checked="" type="checkbox"/> 8. OTHER (specify):      |            |  |             |  |
|                                                         |                                                            | <input checked="" type="checkbox"/> 9. OTHER (specify):       |                                                              |            |  |             |  |

## E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

See additional comments on page 3.

## V. WASTE RELATED INFORMATION

## A. WASTE TYPE

☐ 1. UNKNOWN    ☒ 2. LIQUID    ☒ 3. SOLID    ☐ 4. SLUDGE    ☐ 5. GAS

## B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN    ☒ 2. CORROSIVE    ☐ 3. IGNITABLE    ☐ 4. RADIOACTIVE    ☐ 5. HIGHLY VOLATILE  
☒ 6. TOXIC    ☐ 7. REACTIVE    ☐ 8. INERT    ☐ 9. FLAMMABLE
☐ 10. OTHER (specify):

## C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

Records are incomplete according to the company.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

| a. SLUDGE                                                   | b. OIL                                              | c. SOLVENTS                                                  | d. CHEMICALS                                   | e. SOLIDS                                               | f. OTHER                                                       |
|-------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------|
| AMOUNT                                                      | AMOUNT                                              | AMOUNT                                                       | AMOUNT                                         | AMOUNT                                                  | AMOUNT                                                         |
| 3000 - 4000                                                 |                                                     |                                                              | about 200,000                                  | 325-330                                                 |                                                                |
| UNIT OF MEASURE                                             | UNIT OF MEASURE                                     | UNIT OF MEASURE                                              | UNIT OF MEASURE                                | UNIT OF MEASURE                                         | UNIT OF MEASURE                                                |
| cu. yards                                                   |                                                     |                                                              | gal.                                           | Drums*                                                  |                                                                |
| <input checked="" type="checkbox"/> (1) PAINT, PIGMENTS     | <input checked="" type="checkbox"/> (1) OILY WASTES | <input checked="" type="checkbox"/> (1) HALOGENATED SOLVENTS | <input checked="" type="checkbox"/> (1) ACIDS  | <input checked="" type="checkbox"/> (1) FLYASH          | <input checked="" type="checkbox"/> (1) LABORATORY PHARMACEUT. |
| <input type="checkbox"/> (2) METALS SLUDGES                 | <input type="checkbox"/> (2) OTHER (specify):       | <input type="checkbox"/> (2) NON-HALOGENATED SOLVENTS        | <input type="checkbox"/> (2) PICKLING LIQUORS  | <input type="checkbox"/> (2) ASBESTOS                   | <input type="checkbox"/> (2) HOSPITAL                          |
| <input type="checkbox"/> (3) POTW                           |                                                     | <input type="checkbox"/> (3) OTHER (specify):                | <input type="checkbox"/> (3) CAUSTICS          | <input type="checkbox"/> (3) MILLING/MINE TAILINGS      | <input type="checkbox"/> (3) RADIOACTIVE                       |
| <input type="checkbox"/> (4) ALUMINUM SLUDGE                |                                                     |                                                              | <input type="checkbox"/> (4) PESTICIDES        | <input type="checkbox"/> (4) FERROUS SMELTG. WASTES     | <input type="checkbox"/> (4) MUNICIPAL                         |
| <input type="checkbox"/> (5) OTHER (specify):               |                                                     |                                                              | <input type="checkbox"/> (5) DYES/INKS         | <input type="checkbox"/> (5) NON-FERROUS SMELTG. WASTES | <input type="checkbox"/> (5) OTHER (specify):                  |
| dredge material with trace contaminants (DNBP and atrazine) |                                                     |                                                              | <input type="checkbox"/> (6) CYANIDE           | <input type="checkbox"/> (6) OTHER (specify):           |                                                                |
|                                                             |                                                     |                                                              | <input type="checkbox"/> (7) PHENOLS           | *See bottom of page 4.                                  |                                                                |
|                                                             |                                                     |                                                              | <input type="checkbox"/> (8) HALOGENS          |                                                         |                                                                |
|                                                             |                                                     |                                                              | <input type="checkbox"/> (9) PCB               |                                                         |                                                                |
|                                                             |                                                     |                                                              | <input type="checkbox"/> (10) METALS           |                                                         |                                                                |
|                                                             |                                                     |                                                              | <input type="checkbox"/> (11) OTHER (specify): |                                                         |                                                                |
|                                                             |                                                     |                                                              | Dinitrobutyl phenol (DNBP) wastewater          |                                                         |                                                                |

## WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

See attached page for details.

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

## VI. HAZARD DESCRIPTION

| A. TYPE OF HAZARD                                      | B. POTENTIAL HAZARD (mark 'X') | C. ALLEGED INCIDENT (mark 'X') | D. DATE OF INCIDENT (mo., day, yr.) | E. REMARKS |
|--------------------------------------------------------|--------------------------------|--------------------------------|-------------------------------------|------------|
| 1. NO HAZARD                                           |                                |                                |                                     |            |
| 2. HUMAN HEALTH                                        |                                |                                |                                     |            |
| 3. NON-WORKER INJURY/EXPOSURE                          |                                |                                |                                     |            |
| 4. WORKER INJURY                                       |                                |                                |                                     |            |
| 5. CONTAMINATION OF WATER SUPPLY                       |                                |                                |                                     |            |
| 6. CONTAMINATION OF FOOD CHAIN                         |                                |                                |                                     |            |
| 7. CONTAMINATION OF GROUND WATER                       |                                |                                |                                     |            |
| 8. CONTAMINATION OF SURFACE WATER                      |                                |                                |                                     |            |
| 9. DAMAGE TO FLORA/FAUNA                               |                                |                                |                                     |            |
| 10. FISH KILL                                          |                                |                                |                                     |            |
| 11. CONTAMINATION OF AIR                               |                                |                                |                                     |            |
| 12. NOTICEABLE ODORS                                   |                                |                                |                                     |            |
| 13. CONTAMINATION OF SOIL                              |                                |                                |                                     |            |
| 14. PROPERTY DAMAGE                                    |                                |                                |                                     |            |
| 15. FIRE OR EXPLOSION                                  |                                |                                |                                     |            |
| 16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS |                                |                                |                                     |            |
| 17. SEWER, STORM DRAIN PROBLEMS                        |                                |                                |                                     |            |
| 18. EROSION PROBLEMS                                   |                                |                                |                                     |            |
| 19. INADEQUATE SECURITY                                |                                |                                |                                     |            |
| 20. INCOMPATIBLE WASTES                                |                                |                                |                                     |            |
| 21. MIDNIGHT DUMPING                                   |                                |                                |                                     |            |
| 22. OTHER (specify):                                   |                                |                                |                                     |            |

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- ☒ 1. NPDES PERMIT ☒ 2. SPCC PLAN ☐ 3. STATE PERMIT (specify):  
☒ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER  
☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9. RCRA DISPOSER  
☐ 10. OTHER (specify):

B. IN COMPLIANCE?

- ☐ 1. YES ☒ 2. NO ☐ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): Not in compliance with NPDES permit with respect to

VIII. PAST REGULATORY ACTIONS

- ☐ A. NONE ☒ B. YES (summarize below)

Nitrates

Fined by Bureau of Pollution Control for permit violation.

IX. INSPECTION ACTIVITY (past or on-going)

- ☐ A. NONE ☒ B. YES (complete items 1, 2, 3, & 4 below)

| 1. TYPE OF ACTIVITY | 2. DATE OF PAST ACTION (mo., day, & yr.) | 3. PERFORMED BY: (EPA/State) | 4. DESCRIPTION        |
|---------------------|------------------------------------------|------------------------------|-----------------------|
| Inspection          | Aug., 1979                               | EPA                          | Geological assessment |
| Inspection          | Dec. 6, 1979                             | STATE                        |                       |
|                     |                                          |                              |                       |

X. REMEDIAL ACTIVITY (past or on-going)

- ☐ A. NONE ☒ B. YES (complete items 1, 2, 3, & 4 below)

| 1. TYPE OF ACTIVITY | 2. DATE OF PAST ACTION (mo., day, & yr.) | 3. PERFORMED BY: (EPA/State) | 4. DESCRIPTION                          |
|---------------------|------------------------------------------|------------------------------|-----------------------------------------|
|                     |                                          |                              | Vertac is considering removal of solids |
|                     |                                          |                              | secure landfill                         |
|                     |                                          |                              |                                         |

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.

continued from question No. 2, page 2

Records do not specify size of drums; but probably are 55-gal. drums.  
 Drummed wastes are as follows:

1. 17 drums of spent activated carbon (containing unknown trace organics)
2. 31 drums of plastic liners (from bags containing sodium nitrophenol) and empty bromine bottles.
3. 25-30 drums of DMU (dimethyl urea) and IPA (isopropyl amine)
4. 172 drums cyanuric chloride (from atrazine process)
5. 80 drums PCl<sub>3</sub>, PSCl<sub>3</sub>, or PS (CH<sub>3</sub>)<sub>2</sub> Cl



Three small pits contain dredge material from surge lagoon under NPDES permit. The dredge material is mostly dirt with traces of DNBP and atrazine. (DNBP has a 170 day half-life. Atrazine has a 90-day half-life.) The dirt comes from runoff that flows into surge lagoon. Rainwater falling into the pits is drained into surge lagoon.

Another pit contains about 200,000 gallons of DNBP wastewater. About 1 1/2 million gallons have already been treated on-site by carbon absorption before discharge (NPDES system). Pit should be emptied by January, 1980.

Drums contain solid materials buried in late 1974 and early 1975 by Vicksburg Chemical Company. Drummed wastes are from processes that are no longer operational. Drummed wastes, though buried in the same general area, were segregated.  $\text{PCl}_3$  wastes were buried in a separate area.

An additional 4000 empty drums were placed in another pit in 1975-76. Vicksburg Chemical attempted to dissolve the drums with HCl acid. Volume of acid unknown. Acid was drained off after one to two months. Probably bled into wastewater treatment system. All but about 200 deteriorated drums have been removed.

Since September, 1975, all waste materials are taken to permitted industrial waste landfills in Louisiana. There is no current on-site disposal. The methyl parathion plant is no longer operational.

This information was obtained from Vertac Chemical Company Officials.

CHLORAL, INC. - LINDSEY PLANT  
SOLID WASTE DISPOSAL SITES

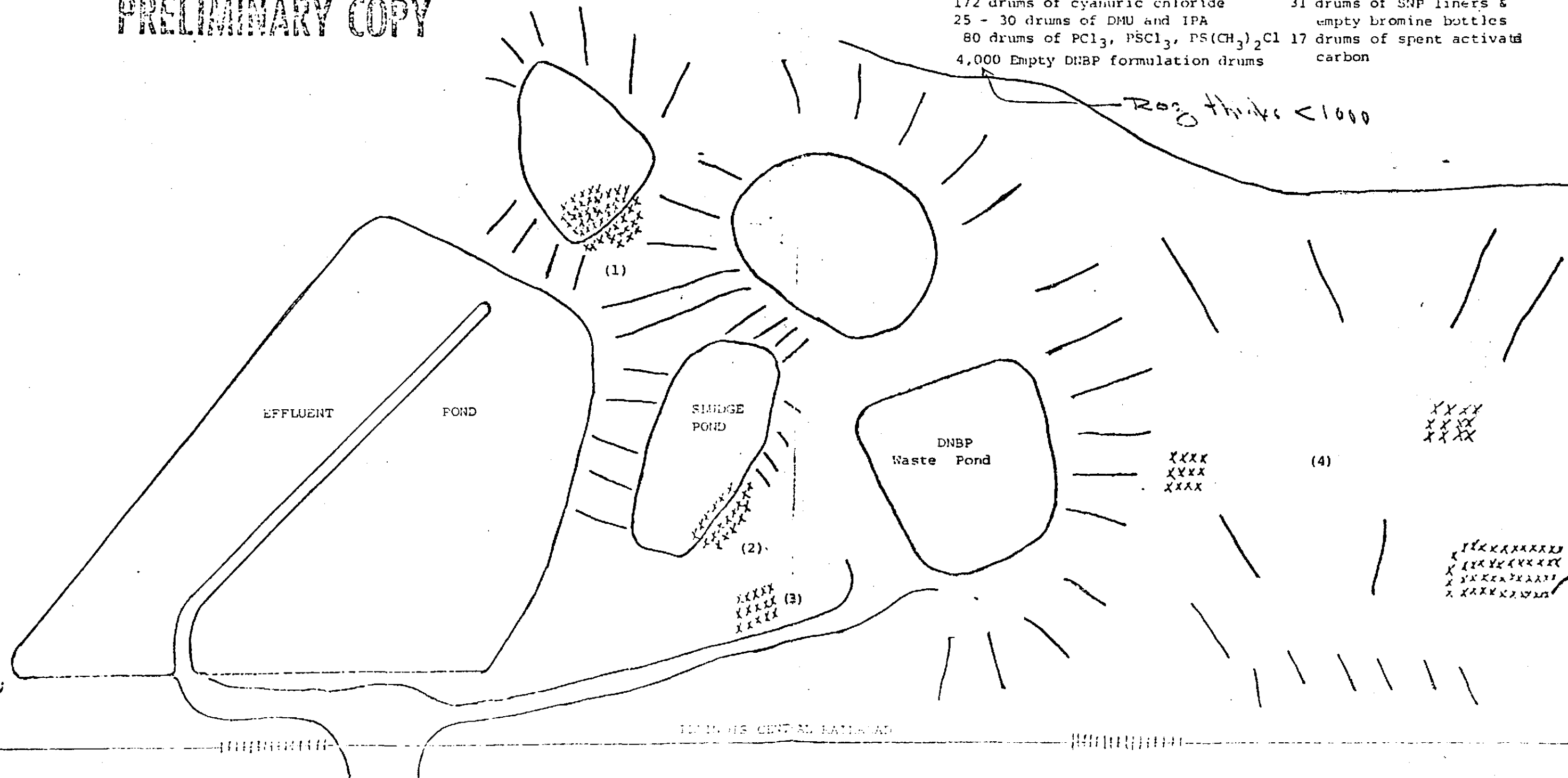
ADP  
XXX

1. Empty DMBP formulation drums
2. Residue and debris Methyl Parathion fire
3.  $PCl_3$ ,  $PSCl_3$ ,  $PS(CH_3)_2Cl$
4. Cyanuric Chloride, SNP liners, Bromine bottles, DMU, IPA, spent activated carbon

Between Jan. 1 and Sept. 17, 1975 the following material was disposed of in this area:

|                                                 |                                                |
|-------------------------------------------------|------------------------------------------------|
| 172 drums of cyanuric chloride                  | 31 drums of SNP liners & empty bromine bottles |
| 25 - 30 drums of DMU and IPA                    | 17 drums of spent activated carbon             |
| 80 drums of $PCl_3$ , $PSCl_3$ , $PS(CH_3)_2Cl$ |                                                |
| 4,000 Empty DMBP formulation drums              |                                                |

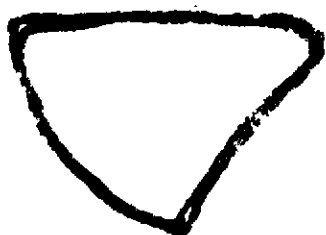
PRELIMINARY COPY



3-26-79

264 x







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

JUN 6 1989

4WD-RCRA

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

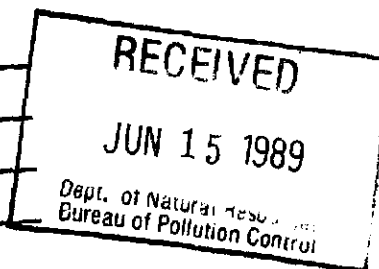
DIVISION OF SOLID WASTE

REVIEWED BY TC

DATE 6/16/89

COMMENTS \_\_\_\_\_

Mr. Steven T. Boswell, Director  
Environmental Affairs  
Cedar Chemical Corporation  
P.O. Box 3  
Vicksburg, Mississippi 39180



Re: Request for Information Pursuant to Section 104 of  
CERCLA and Section 3007 of RCRA, for Cedar Chemical  
Corporation in Vicksburg, Mississippi.

Dear Mr. Boswell:

The United States Environmental Protection Agency (EPA) is investigating the source, extent and nature of the release or threatened release of hazardous substances, pollutants or contaminants on or about the Cedar Chemical Corporation (CCC) facility in Vicksburg, Mississippi.

This investigation is conducted under the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. Section 9604, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499, and Section 3007 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6927. Pursuant to these statutory provisions you are hereby requested to provide the following information and forward all documents relating thereto to this office:

- (1) A list of the dates when the facility's Contingency Plan or Spill Prevention, Control and Counter-Measures (SPCC) Plan has been implemented.
- (2) For each of the dates listed in response to question one, the reason for the implementation of the plan, a discussion of all actions taken pursuant to the plan and the exact location of each incident requiring implementation of the plan.
- (3) All information relating to material disposed of in the "old landfill area" adjacent to the facility's surface impoundment.
- (4) A drawing or written description of the location or approximate location of the pits in the "old landfill area".

Compliance with this request for information is mandatory. Failure to respond fully and truthfully to each and every question or request within ten (10) business days of receipt of this letter, or to adequately justify such failure to respond, may result in enforcement action by EPA pursuant to Section 104 of

CERCLA, as amended, and/or Section 3008 of RCRA. Each of these statutes permits EPA to seek the imposition of penalties of up to twenty-five thousand dollars (\$25,000) for each day of continued non-compliance.

Your response to this request for information should be mailed to:

Allan E. Antley, Chief  
Waste Compliance Section  
U.S. EPA - Region IV  
RCRA Branch  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

The information requested herein must be provided notwithstanding its possible characterization as confidential information or trade secrets. You may, if you desire, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. Section 2.203 (b), by attaching to such information at the time it is submitted, a notice employing language such as "trade secret," or "proprietary" or "company confidential". Information covered by such a claim will be disclosed by EPA only to the extent, and only by the means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA it may be made available to the public by EPA without further notice to you. You should read the above cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim.

Should you have any question, please contact Jeaneanne Gettle at (404) 347-7603 or Zylpha Pryor, Assistant Regional Counsel, at (404) 347-2641.

Sincerely,



Patrick M. Tobin  
Director  
Waste Management Division

cc: Sam Mabry, MSDNR

# CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

REPLY TO: P.O. BOX 3  
VICKSBURG, MS 39181  
(601) 636-1231

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
P 677 981 824

July 13, 1989

Mr. Toby Cook  
Environmental Engineer  
Bureau of Pollution Control  
2380 Highway 80 West  
Jackson, Mississippi 39209

RECEIVED  
JUL 14 1989  
DIVISION OF SOLID WASTE  
BUREAU OF POLLUTION CONTROL  
REVIEWED BY 7/14/89  
DATE 7/14/89  
COMMENTS \_\_\_\_\_

Subject: Cedar Chemical Corp.  
South Pond Retrofit Status Report

Dear Mr. Cook:

As we have discussed in several telephone conversations during the past few months, there have been some changes in the Cedar Chemical South Pond project. None are so major as to have caused a basic change to the intent or method of conducting the project. This letter is intended to describe those changes and the progress of the project thus far.

The project has been significantly delayed by the frequent and heavy rainfall nearly everyone has experienced this year in Mississippi. At this time, we are still in the stage of constructing the Solid Waste Disposal Area (SWCA). Sediments from the area have been solidified and stockpiled within the pond boundaries. Samples of the SWCA bottom were taken and analyzed for the parameters the Bureau requested. The results are attached along with a drawing showing the sample locations.

Installation of the SWCA leachate collection and leak detection sumps was completed June 23rd. Construction of the North levee of the SWCA was begun on June 23rd. Following construction of the levees around the SWCA, installation of the liners, leachate collection and leak detection piping can begin. The liner installation should take approximately two weeks (weather permitting).

The changes that have been made are as follows:

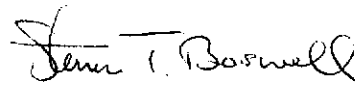
1. The location of the pump station has been moved to the west side of the ponds and the elevation of the pump intake lines has been raised from 95' to 96'. (See drawings)
2. The leachate collection and leak detection sumps material of construction has been changed from HDPE to asphaltic coated concrete to avoid possible buoyancy problems. The sumps are 5' in diameter to allow access. The bottom of the sumps will have

an 80 mil HDPE liner to above the high level alarm level.

3. Field fabricated boots will replace prefabricated boots on liner piping penetrations.
4. Cast iron valves for flow control have been replaced by PVC plastic valves.
5. The leachate collection sump pump will be a 2hp submersible.
6. Excess liner placement to accomodate settlement will be at the levee crest instead of at the toe.
7. The liner anchor trenches depths have been increased by one foot.
8. Extra solidification of the SWCA base material has been performed to insure bearing capacity required.
9. The SWCA north levee now includes a 8' wide by 2' - 3' deep key placed along its centerline.

If there are questions concerning this matter, please contact me.

Sincerely,



Steven T. Boswell  
Director of Env. Affairs

STB: pc



# SWCA SAMPLING PLAN

PROGRAM

5 HOME

10 X = RND(3) \* 25

15 PRINT INT(X+1)

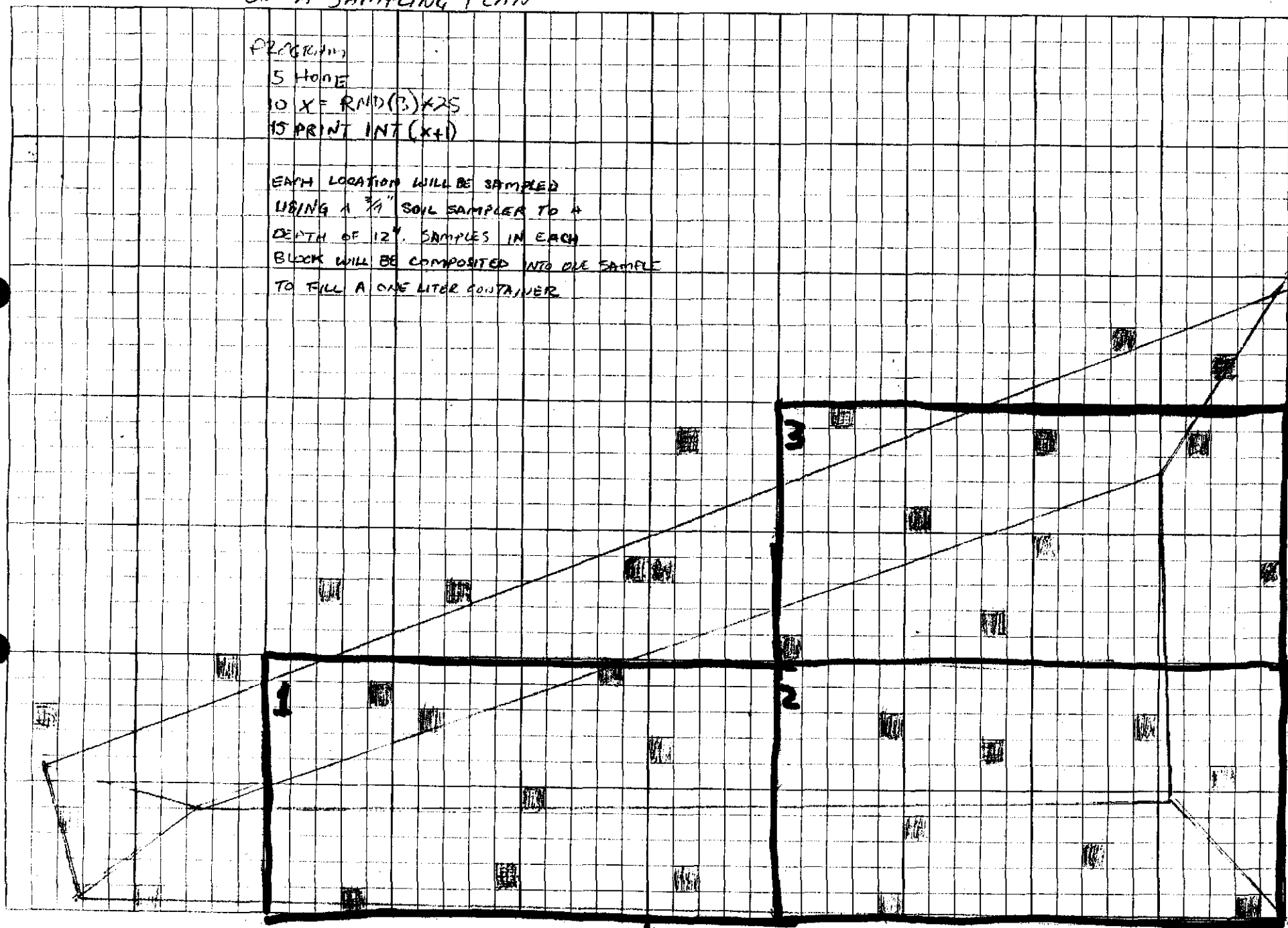
EACH LOCATION WILL BE SAMPLED

USING A  $\frac{3}{4}$ " SOIL SAMPLER TO A

DEPTH OF 12". SAMPLES IN EACH

BLOCK WILL BE COMPOSITED INTO ONE SAMPLE

TO FILL A ONE LITER CONTAINER





# ENVIRONMENTAL PROTECTION SYSTEMS

P.O. Box 20382 • 165 Upton Drive • Jackson, MS 39209 • Telephone (601) 922-8242 • FAX (601) 922-9163

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 06/28/89

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT

RECEIPT DATE: 06/06/89

REPORT NO.: 7509

PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10179.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total                      | mg/kg | 6.4                |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Carbazine                           | mg/kg | 770                |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 90         | 5                    |
| Bladex                              | mg/kg | <50                |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 103        | 23                   |
| Dinitrobutylphenol                  | mg/kg | <0.3               |  |  |  | SCP                  | 06/15/89 | 08:00 | NA                    | NA         | NA                   |
| Methyl Parathion                    | mg/kg | <50                |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 102        | 4                    |
| Toxaphene                           | mg/kg | 134                |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10179.00 SOIL SAMPLE #1 FOR TOTAL PARAMETERS

### COLLECTION DATE/TIME:

06/01/89 06/01/89 UNK

### CERTIFICATION:



*John Braumard*  
Quality Assurance and Quality Control  
*Norbert R. Johnston*  
Analytical and Bio-Analytical Services

This report applies only to the sample investigated and is not necessarily indicative of the quality of apparently identical or similar samples. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# ENVIRONMENTAL PROTECTION SYSTEMS

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## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 06/28/89

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT

RECEIPT DATE: 06/06/89

REPORT NO.: 7510

PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10181.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total                      | mg/kg | <0.3               |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Carbazine                           | mg/kg | 389                |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 90         | 5                    |
| Bladex                              | mg/kg | 91                 |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 103        | 23                   |
| Dinitrobutylphenol                  | mg/kg | 28.6               |  |  |  | SCP                  | 06/15/89 | 08:00 | NA                    | NA         | NA                   |
| Methyl Parathion                    | mg/kg | <50                |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 102        | 4                    |
| Toxaphene                           | mg/kg | 22                 |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10181.00 SOIL SAMPLE #2 FOR TOTAL PARAMETERS

### COLLECTION DATE/TIME:

06/01/89 06/01/89 UNK

### CERTIFICATION:



*John Brown*  
Quality Assurance and Quality Control  
*Herbert W. Johnston*  
Analytical and Bio-Analytical Services

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# ENVIRONMENTAL PROTECTION SYSTEMS

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## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 06/28/89

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT

RECEIPT DATE: 06/06/89

REPORT NO.: 7511

PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10183.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total                      | mg/kg | 7.9                |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Chlorazime                          | mg/kg | 227                |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 90         | 5                    |
| Bladex                              | mg/kg | <50                |  |  |  | SCP                  | 06/12/89 | 08:00 | 1.67                  | 103        | 23                   |
| Dinitrobutylphenol                  | mg/kg | <0.3               |  |  |  | SCP                  | 06/15/89 | 08:00 | NA                    | NA         | NA                   |
| Methyl Parathion                    | mg/kg | <50                |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 102        | 4                    |
| Toxaphene                           | mg/kg | 50                 |  |  |  | SCP                  | 06/12/89 | 08:00 | 0.83                  | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10183.00 SOIL SAMPLE #3 FOR TOTAL PARAMETERS

### COLLECTION DATE/TIME:

06/01/89 06/01/89 UNK

### CERTIFICATION:



*John Brown*  
Quality Assurance and Quality Control  
*Herbert A. Johnston*  
Analytical and Bio-analytical Services

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# ENVIRONMENTAL PROTECTION SYSTEMS

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## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM DATE: 06/26/89

LOCATION: VICKSBURG, MS 39180

PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT

RECEIPT DATE: 06/06/89

REPORT NO.: 7463

PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10180.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total Leachable            | mg/l  | 0.03               |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Atrazine, Total Leachable           | ug/l  | 93000              |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Bladex, Total Leachable             | ug/l  | 100000             |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Dinitrobutylphenol, Total Leachable | mg/l  | 0.36               |  |  |  | SCP                  | 06/09/89 | 09:30 | 0.1                   | 88         | NA                   |
| Methyl Parathion, Total Leachable   | ug/l  | <100               |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 85         | NA                   |
| Toxaphene, Total Leachable          | ug/l  | <24                |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10180.00 SOIL SAMPLE #1 FOR LEACHABLE PARAMETERS

### COLLECTION DATE/TIME:

06/01/89-06/01/89 UNK

### CERTIFICATION:



*L. R. Hudnall*

Quality Assurance and Quality Control

*John Brown*

Analytical and Bio-Analytical Services

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# ENVIRONMENTAL PROTECTION SYSTEMS

P.O. Box 20382 • 165 Upton Drive • Jackson, MS 39209 • Telephone (601) 922-8242 • FAX (601) 922-9163

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM  
LOCATION: VICKSBURG, MS 39180

DATE: 06/26/89  
PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT  
RECEIPT DATE: 06/06/89

REPORT NO.: 7464  
PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10182.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total Leachable            | mg/l  | 0.04               |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Chlorzine, Total Leachable          | ug/l  | 66000              |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Bladex, Total Leachable             | ug/l  | 45000              |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Dinitrobutylphenol, Total Leachable | mg/l  | 10.5               |  |  |  | SCP                  | 06/09/89 | 09:30 | 0.1                   | 88         | NA                   |
| Methyl Parathion, Total Leachable   | ug/l  | <100               |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 85         | NA                   |
| Toxaphene, Total Leachable          | ug/l  | <24                |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10182.00 SOIL SAMPLE #2 FOR LEACHABLE PARAMETERS

### COLLECTION DATE/TIME:

06/01/89 06/01/89 UNK

### CERTIFICATION:



*L. R. Huchins*

Quality Assurance and Quality Control

*John Brumfield*  
Analytical and Bio-Analytical Services

This report applies only to the sample investigated and is not necessarily indicative of the quality of apparently identical or similar samples. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



# ENVIRONMENTAL PROTECTION SYSTEMS

P.O. Box 20382 • 165 Upton Drive • Jackson, MS 39209 • Telephone (601) 922-8242 • FAX (601) 922-9163

## LABORATORY REPORT

CLIENT: VICKSBURG CHEMICAL DIV OF CEDAR CHEM  
LOCATION: VICKSBURG, MS 39180

DATE: 06/26/89  
PROJECT LOCATION: VICKSBURG, MS

COLLECTED BY: CLIENT  
RECEIPT DATE: 06/06/89

REPORT NO.: 7465  
PROJECT NO.:

PAGE NO.: 1

| TEST RESULTS                        | UNITS | LABORATORY RESULTS |  |  |  | ANALYSIS INFORMATION |          |       | BATCH QUALITY CONTROL |            |                      |
|-------------------------------------|-------|--------------------|--|--|--|----------------------|----------|-------|-----------------------|------------|----------------------|
|                                     |       | REGULATORY LIMIT   |  |  |  | ANALYST              | DATE     | TIME  | SPIKE VALUE           | % RECOVERY | RELATIVE % DEVIATION |
| TEST RESULTS FOR SAMPLE LOG NUMBER: |       | 10184.00           |  |  |  |                      |          |       |                       |            |                      |
| Arsenic, Total Leachable            | mg/l  | <0.03              |  |  |  | BSC                  | 06/08/89 | 16:00 | 0.200                 | 100        | 0                    |
| Atrazine, Total Leachable           | ug/l  | 45000              |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Bladex, Total Leachable             | ug/l  | 22000              |  |  |  | SCP                  | 06/13/89 | 10:50 | NA                    | NA         | NA                   |
| Dinitrobutylphenol, Total Leachable | mg/l  | 0.17               |  |  |  | SCP                  | 06/09/89 | 09:30 | 0.1                   | 88         | NA                   |
| Methyl Parathion, Total Leachable   | ug/l  | <100               |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 85         | NA                   |
| Toxaphene, Total Leachable          | ug/l  | <24                |  |  |  | SCP                  | 06/13/89 | 10:50 | 25                    | 87         | NA                   |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |
|                                     |       |                    |  |  |  |                      |          |       |                       |            |                      |

### SUPPLEMENT INFORMATION:

Analyses conducted in accordance with 40 CFR, Part 261, November 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

### SAMPLE DESCRIPTION:

10184.00 SOIL SAMPLE #3 FOR LEACHABLE PARAMETERS

### COLLECTION DATE/TIME:

06/01/89 06/01/89 UNK

### CERTIFICATION:



*L.R. Hudson*  
Quality Assurance and Quality Control  
*John Brown*  
Analytical and Bio-Analytical Services

This report applies only to the sample investigated and is not necessarily indicative of the quality of apparently identical or similar samples. The liability of the laboratory is limited to the amount paid for the report by the client. The client assumes all liability for the further distribution of this report or its content and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents hereof.



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES  
Bureau of Pollution Control  
P. O. Box 10385  
Jackson, Mississippi 39209  
(601) 961-5171  
MEMORANDUM



TO: File

FROM: Toby Cook

SUBJECT: Cedar Chemical, Vicksburg

DATE: January 30, 1989

Steve Spengler and I met with Steve Boswell and Allen Malone representing Cedar Chemical on January 27, 1989. They reported that the contract has been let and the contractor has moved on site to begin partial closure and make modifications to the impoundment. They left us a copy of the contractor's performance bond.

Cedar had requested in a letter dated December 21, 1988, that we consider reducing the frequency of sampling and number of wells being sampled. We stated that further consultations with our hydrologist would be required, but that the following schedule would be considered:

|        | <u>Semi-annually</u> | <u>Annually</u> |
|--------|----------------------|-----------------|
| Well # | 1A                   | 2               |
|        | 5                    | 4               |
|        | 6                    | 8               |
|        | 7                    | 9               |
|        | 10                   | 12              |
|        | 11                   | 13              |
|        | 14                   |                 |
|        | 16                   |                 |

We also pointed out that RCRA regs would require four replicates from each well and statistical analysis of the results.

A discussion took place regarding the vagueness of the order requiring groundwater monitoring and it was suggested that we would draft a new order containing more specific language, and likely a 30 year requirement for sampling.

A discussion also took place regarding the existing closure trust fund. It was stated that Cedar was not interested in making an additional immediate contribution to the trust fund, although additional contributions were not entirely ruled out. It appears that a clear definition of the trust fund use is also needed in any subsequent order.



The need for remedial action in monitoring well 1A was discussed. It was suggested that water could be pumped from well 1A, treated and discharged in accordance with their NPDES permit. It was pointed out that discharging the well water directly into the impoundment could potentially endanger the non-regulated status of the impoundment.

TC:lr

# Fidelity and Deposit Company

HOME OFFICE

OF MARYLAND

BALTIMORE, MD. 21203

Bond No. ....

## Performance Bond

KNOW ALL MEN BY THESE PRESENTS:

That LEWIS MILLER CONSTRUCTION COMPANY, INC.  
(Here insert the name and address or legal title of the Contractor)  
Vicksburg, Mississippi

as Principal, hereinafter called Contractor, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, with its home office in the City of Baltimore, Maryland, U. S. A., as Surety, hereinafter called Surety, are held and firmly bound unto

CEDAR CHEMICAL CORPORATION, Memphis, Tennessee  
(Here insert the name and address or legal title of the Owner)

as Obligee, hereinafter called Owner,

in the amount of ONE MILLION, NINETY SIX THOUSAND, EIGHT HUNDRED FIFTY AND No/100

Dollars (\$ 1,096,850.00 ), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated January 17 1989, entered into a contract with Owner for Constructing and Implementing a Partial Closure and Retrofit of a Face Impoundment

in accordance with drawings and specifications prepared by

(Here insert full name, title and address)  
which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly

(1) Complete the Contract in accordance with its terms and conditions, or

(2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of Owner.

Signed and sealed this 20th day of JANUARY A.D. 1989

In the presence of:

Sail R. Walker

LEWIS MILLER CONSTRUCTION COMPANY, INC. (SEAL)

by: Benson Warnock Principal  
Benson Warnock Title Sec. Treas.

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

Melanie Todd

By Melanie Todd (SEAL)  
Melanie Todd Title  
Attorney-in-fact

**Power of Attorney**  
**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

HOME OFFICE, BALTIMORE, MD

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by C. M. PECOT, JR., Vice-President, and C. W. ROBBINS, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint Clifton C. Inge, Schley Rutherford, W. E. Roney, Jr., Jim E. Mabrey and Melanie Todd, all of Mobile, Alabama, EACH.....

its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings.....

And the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of Clifton C. Inge, et al, dated, January 28, 1985.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 28th day of June, A.D. 1988

ATTEST:



FIDELITY AND DEPOSIT COMPANY OF MARYLAND

*C. W. Robbins*  
Assistant Secretary

By

*Clifton C. Inge*  
Vice-President

STATE OF MARYLAND  
CITY OF BALTIMORE

ss:

On this 28th day of June, A.D. 1988, before the subscriber, a Notary Public of the State of Maryland, in and for the City of Baltimore, duly commissioned and qualified, came the above-named Vice-President and Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Baltimore, the day and year first above written.



*Carol J. Fisher*  
Notary Public Commission Expires July 1, 1990

**CERTIFICATE**

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 16th day of July, 1969.

RESOLVED: "That the facsimile or mechanically reproduced signature of any Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company, this day of JAN 2 - 1989, 19\_\_

056-2350

*Christopher T. Madden*  
Assistant Secretary

**EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

**"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages, . . . and to affix the seal of the Company thereto."**

# Fidelity and Deposit Company

Bond No. ....

HOME OFFICE

OF MARYLAND

BALTIMORE, MD. 21203

## Labor and Material Payment Bond

Note: This bond is issued simultaneously with Performance Bond in favor of the owner conditioned on the full and faithful performance of the contract.

KNOW ALL MEN BY THESE PRESENTS:

That LEWIS MILLER CONSTRUCTION COMPANY, INC.  
(Here insert the name and address or legal title of the Contractor)  
Vicksburg, Mississippi

as Principal, hereinafter called Principal, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, with its home office in the City of Baltimore, Maryland, U. S. A., as Surety, hereinafter called Surety, are held and firmly bound unto

CEDAR CHEMICAL CORPORATION, Memphis, Tennessee  
(Here insert the name and address or legal title of the Owner)

as Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the amount of ONE MILLION, NINETY SIX THOUSAND, EIGHT HUNDRED FIFTY AND NO/100

Dollars (\$1,096,850.00) (Here insert a sum equal to at least one-half of the contract price), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated January 17 1989, entered into a contract with Owner for Constructing and Implementing a Partial Closure and Retrofit of a Face Impoundment

in accordance with drawings and specifications prepared by

(Here insert full name, title and address)  
which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a sub-contractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
  - (a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
  - (b) After the expiration of one (1) year following the date on which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
  - (c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this 20th day of JANUARY A.D. 1989

In the presence of:

LEWIS MILLER CONSTRUCTION COMPANY, INC. (SEAL)

by: Benson Warnock Principal  
Benson Warnock Title Sec Treas

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: Melanie Todd (SEAL)  
Melanie Todd Title  
Attorney-in-fact

**Power of Attorney**  
**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

HOME OFFICE, BALTIMORE, MD

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by C. M. PECOT, JR., Vice-President, and C. W. ROBBINS, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint Clifton C. Inge, Schley Rutherford, W. E. Roney, Jr., Jim E. Mabrey and Melanie Todd, all of Mobile, Alabama, EACH.....

its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings.....

And the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of Clifton C. Inge, et al., dated, January 28, 1985.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 28th day of June, A.D. 1988

ATTEST:



FIDELITY AND DEPOSIT COMPANY OF MARYLAND

*C. W. Robbins*  
Assistant Secretary

By

*Clifton C. Inge*  
Vice-President

STATE OF MARYLAND  
CITY OF BALTIMORE

ss:

On this 28th day of June, A.D. 1988, before the subscriber, a Notary Public of the State of Maryland, in and for the City of Baltimore, duly commissioned and qualified, came the above-named Vice-President and Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Baltimore, the day and year first above written.



*Barry J. Faler*  
Notary Public Commission Expires July 1, 1990

**CERTIFICATE**

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 16th day of July, 1969.

RESOLVED: "That the facsimile or mechanically reproduced signature of any Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company, this 28th day of JAN 2 1989, 1989.

056-2350

*Christopher T. Maddox*  
Assistant Secretary

**EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages, . . . and to affix the seal of the Company thereto."

# GENERAL LIABILITY OF INSURANCE

Jan 20, 1989

PRODUCER

W.K.P. Wilson & Son, Inc.

P.O. Box 2407  
Mobile, AL 36652

INSURED

Lewis Miller Construction Co. Inc.  
Post Office Box 348  
Vicksburg, MS 39160

IS CERTIFIED THAT THE  
POLICY NUMBER AND THE  
TERMS OF THE POLICY

INFORMATION ONLY AND CONFERS  
NO RIGHTS OR OBLIGATIONS  
UNLESS SET FORTH BELOW

NAME

COVERAGE

Employers Casualty Company

Great American

COMPANY  
LETTER

COMPANY  
LETTER

## COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

| CC<br>LTR | TYPE OF INSURANCE                                                                                                                                                                                                                                                                                                          | POLICY NUMBER | IN EFFECT<br>DATE | EXPIRATION<br>DATE | LIMITS IN THOUSANDS                                           |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|--------------------|---------------------------------------------------------------|
| A         | <b>GENERAL LIABILITY</b><br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCURRENCE<br><input type="checkbox"/> OWNER'S & CONTRACTORS PROTECTIVE                                                                           | GLA43 48 66B  | 10/30/88          | 10/30/89           | \$ 2,000<br>\$ 2,000<br>\$ 1,000<br>\$ 1,000<br>\$ 50<br>\$ 5 |
| A         | <b>AUTOMOBILE LIABILITY</b><br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS<br><input type="checkbox"/> SCHEDULED AUTOS<br><input checked="" type="checkbox"/> HIRED AUTOS<br><input checked="" type="checkbox"/> NON-OWNED AUTOS<br><input type="checkbox"/> GARAGE LIABILITY | BA43 48 66B   | 10/30/88          | 10/30/89           | \$ 1,000<br>\$<br>\$<br>\$<br>\$                              |
| B         | <b>EXCESS LIABILITY</b><br><input checked="" type="checkbox"/> OTHER THAN UMBRELLA FORM                                                                                                                                                                                                                                    | PRO0719906    | 10/30/88          | 10/30/89           | \$ 5,000<br>\$ 5,000                                          |
| A         | <b>WORKERS' COMPENSATION<br/>AND<br/>EMPLOYERS' LIABILITY</b>                                                                                                                                                                                                                                                              | WC43 48 66B   | 10/30/88          | 10/30/89           | STATUTORY<br>\$ 500<br>\$ 500<br>\$ 500                       |
|           | OTHER                                                                                                                                                                                                                                                                                                                      |               |                   |                    |                                                               |

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

GENERAL LIABILITY LIMITS SHOWN ARE THOSE IN EFFECT AS OF POLICY INCEPTION  
Partial Closure and Retrofit of a surface Impoundment, Vicksburg, MS

## CERTIFICATE HOLDER

Cedar Chemical Corporation  
5100 Poplar Avenue, Suite 2414  
Memphis, TX 38137

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Jim E. Mabrey